

Kaktovik Subsistence

Land Use Values through Time in the Arctic National Wildlife Refuge Area



by
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Cynthia Wentworth

U.S. Fish and Wildlife Service
Northern Alaska Ecological Services

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FORWARD

Kaktovik, located on Barter Island on the Beaufort seacoast, is the only village within the boundaries of the Arctic National Wildlife Refuge. Its 175 residents, most of whom are Inupiaq speaking Eskimos, have strong cultural links to lands in and adjacent to the northern part of the refuge and are culturally and economically dependent on the refuge's wildlife resources.

Kaktovik is one of the eight villages belonging to the North Slope Borough, which is the regional governing entity headquartered in Barrow. Modern in many respects, there is also ample evidence of its dependence on the land's resources. New pick-up trucks are parked next to piles of whale maktak. Racks of drying ugruk meat extend from just-completed modern four bedroom houses, and caribou hides are draped over snow-machines parked in front yards. North Slope Borough construction and services offer jobs where residents are regularly employed, but work schedules are flexible enough to allow for subsistence activities, and people hunt and fish on weekends and during vacations.

Continuing petroleum development on the North Slope and its possible extension to the coastal plain of the Arctic National Wildlife Refuge have focused attention on the people of Kaktovik and their subsistence way of life. In order to make optimum resource allocation decisions and minimize petroleum related impacts, it is important to know as much as possible about these peoples' past and present uses of the land and wildlife and the values associated with these uses. This report documents, from the viewpoint of the people of Kaktovik, historic and present land use and associated values in the general area of the Arctic National Wildlife Refuge.

Chapter 1 gives an overview of the area and resources that Kaktovik people use for subsistence. The next three chapters give a historical perspective on the area and the subsistence use of the land: Chapter 2 describes the history of the village of Kaktovik. Chapter 3 tells about other former dwelling places: the Traditional Land Use Inventory sites where people still return to fish and hunt. Chapter 4 describes some of the land use patterns that present Kaktovik people followed when they were younger and which influence subsistence activities now.

Chapter 5 discusses the significance of subsistence use of the land from an economic perspective. The yearly cycle of subsistence activities according to season is described in Chapter 6. Finally, Chapter 7 gives a detailed description of the subsistence use of each species, including where, when and how it is taken.

Appendix 1 shows the principal genealogical relationships of Kaktovik people. The next three Appendices give detailed historical information concerning the Reindeer Era, the Traditional Land Use Inventory Sites used by Kaktovik people, and the land use patterns of various individuals. The final Appendix discusses Kaktovik's role in the 1969 transplant of musk ox on the Arctic National Wildlife Refuge.

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Foremost we would like to acknowledge the many Kaktovik residents who provided the information for this report. Without their willing assistance and cooperation, this work would never have been possible. We greatly appreciate their patience in answering innumerable questions, and will never forget their generosity.

The individuals listed on the title page served as resource specialists during interviews and resource mapping. Many other individuals, including schoolchildren, helped us with historic (Traditional Land Use Inventory) sites and land use information.

We are especially grateful to Tommy Uinñiq Gordon, Herman Aishanna, and Wilson Soplu for sharing much of their experience and knowledge with us, and to Jane Akootchook Thompson for constructive criticism, encouragement and support for our work. We deeply appreciate the help of Olive Gordon Anderson, now of Fairbanks, who provided invaluable village liaison. And we owe special thanks to Kaktovik Mayor Archie Brower not only for sharing his knowledge, but for spending many hours reviewing our manuscripts and discussing them with us.

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Finally, we owe special gratitude to University of Alaska anthropologist Bill Schneider for his valuable advice and for his persistence in helping us get our work published.

INTRODUCTION

In the 1960's, Kaktovik on Barter Island was a little-known village built of quonset huts and cast-off military lumber, dependent on the nearby Barter Island DEW Line installation for jobs and communication with the outside world. Few non-Iñupiat visited the village unless they were connected with the military. The people also supported themselves from the land by hunting and fishing, but their subsistence way of life received little notice from the rest of the world because this part of Alaska's North Slope had no competing economic values.

In 1968, however, the largest oil find in the history of North America was made on the North Slope. Oil was discovered at Prudhoe Bay, just 120 miles west of Kaktovik. The land suddenly became valuable to energy developers and consumers, as well as subsistence users who hunt, fish, and trap in the area.

The Prudhoe Bay oil discovery was the impetus behind passage of the Alaska Native Claims Settlement Act in December 1971. Under this Act, Alaska Natives were granted 40 million acres of land and a one-billion-dollar cash settlement. North Slope Iñupiat participated in this settlement along with twelve other Alaska Native Regions. The Arctic Slope Regional Corporation and the Kaktovik Village Corporation were formed as profit making businesses, and Kaktovik was allotted surface rights to 92,160 acres, mostly within the Arctic National Wildlife Refuge.

Prudhoe Bay oil also meant that a source of revenue now existed for the region. The North Slope Borough was formed in 1972, with the power to tax the Prudhoe Bay oil fields. Kaktovik, the easternmost village in the Borough, was incorporated as a second class city, with a mayor and city council.

By the late 1970's, the benefits of the North Slope Borough and its Prudhoe Bay oil revenues were becoming apparent in Kaktovik. New Borough funded housing, street lights, a power plant, and a high school with a gym and small swimming pool were just some of the improvements. Borough and related construction and service jobs became available so that villagers were no longer economically dependent on the DEW Line site.

At the same time, however, oil company interest was expanding east of Prudhoe Bay and towards Kaktovik's traditional subsistence area. Exploratory drilling rigs were set up as close as Flaxman Island near the Canning River mouth and bordering the Arctic National Wildlife Refuge. In December 1979 the first offshore lease sale was held in the Beaufort Sea, including tracts to within four miles of the Refuge boundary. Further offshore lease sales have been planned for tracts in the Beaufort Sea north of Kaktovik. Finally, in December 1980, the Alaska National Interest Lands Conservation Act (ANILCA), Section 1002, mandated seismic exploration of the coastal plain of the Arctic National Wildlife Refuge, beginning in January 1983. This action placed potential oil activities directly south of Kaktovik and into the heart of the village's subsistence area.

As oil activities move further into Kaktovik's subsistence area, the potential for conflict intensifies. The land and sea remain essential to the local Iñupiat way of life, yet the nation and the world want this same area for the production of more energy. Can these two goals possibly co-exist? This question has yet to be answered. However, if impacts from upcoming oil activities are to be minimized, maximum baseline information on the

Figure 1.
Northern Portion, Arctic
National Wildlife Refuge.

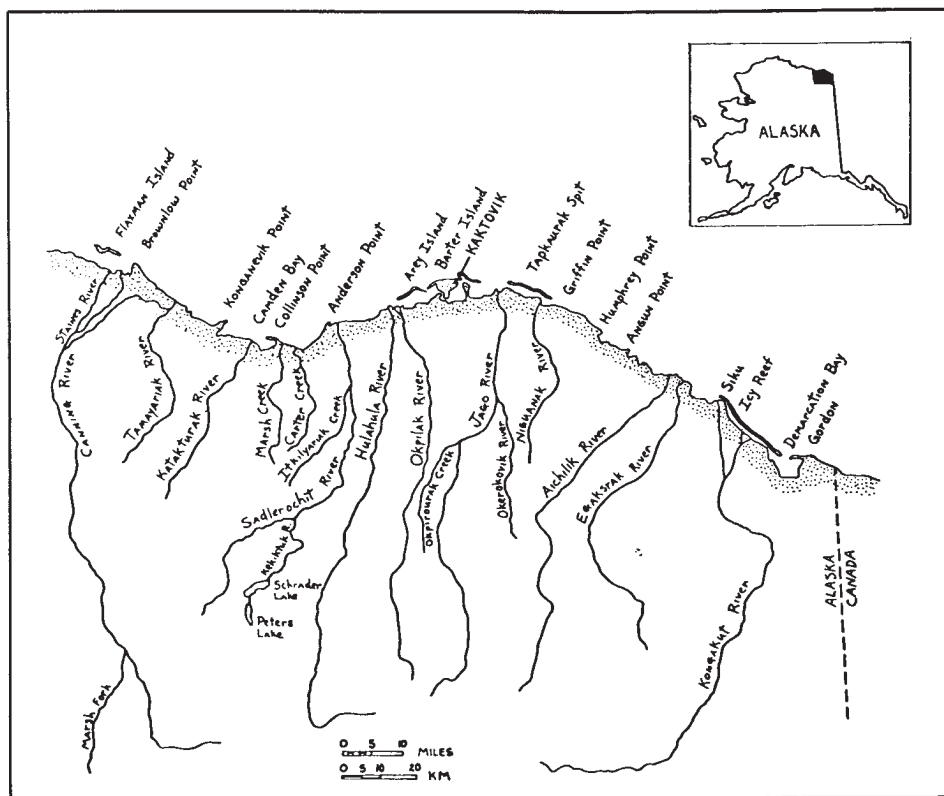
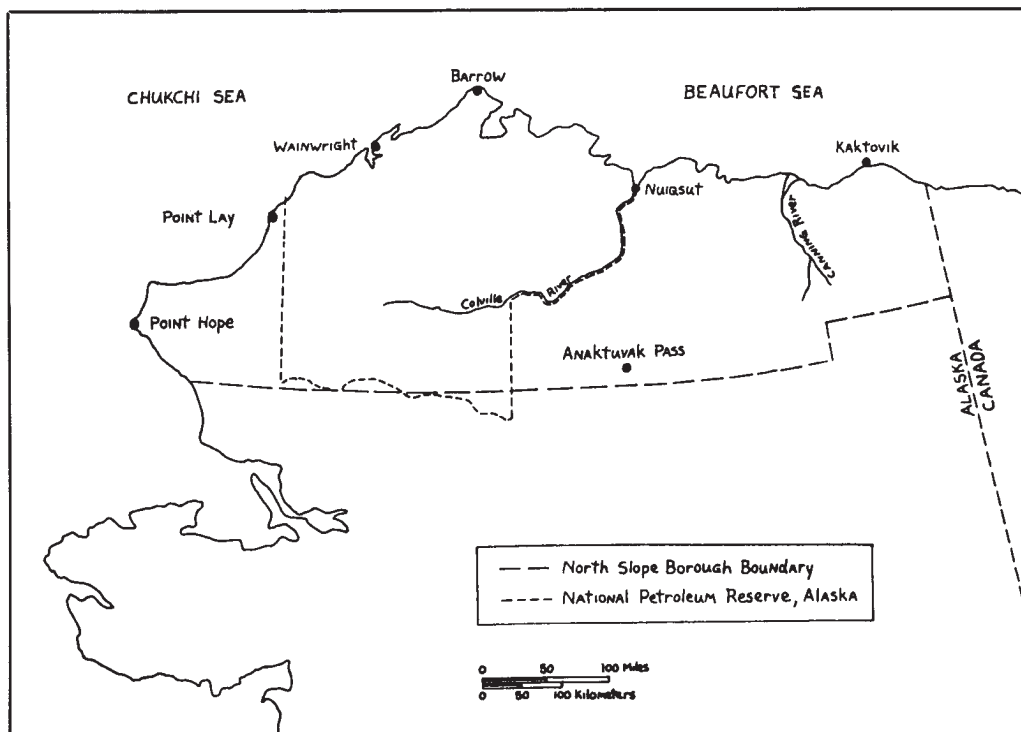


Figure 2.
North Slope Borough.



historic and present uses of the area and its wildlife will be necessary. This report is a step in that direction.

Although this report deals with subsistence and land use, the basis of the Iñupiat culture, a complete treatise on the Iñupiat socio-cultural system as manifested in Kaktovik is outside the scope of this study. (For more information on this socio-cultural system, see Worl and McMillan 1982.) Furthermore, our report does not attempt to cover the political and legal aspects of the subsistence issue. Our goal is to give as much detailed information as possible on past and present subsistence use in the Kaktovik area. We hope this information will lay the groundwork for further socio-economic research and provide an initial basis for making optimum resource decisions and analyzing socio-economic impacts.

Project History and Methods

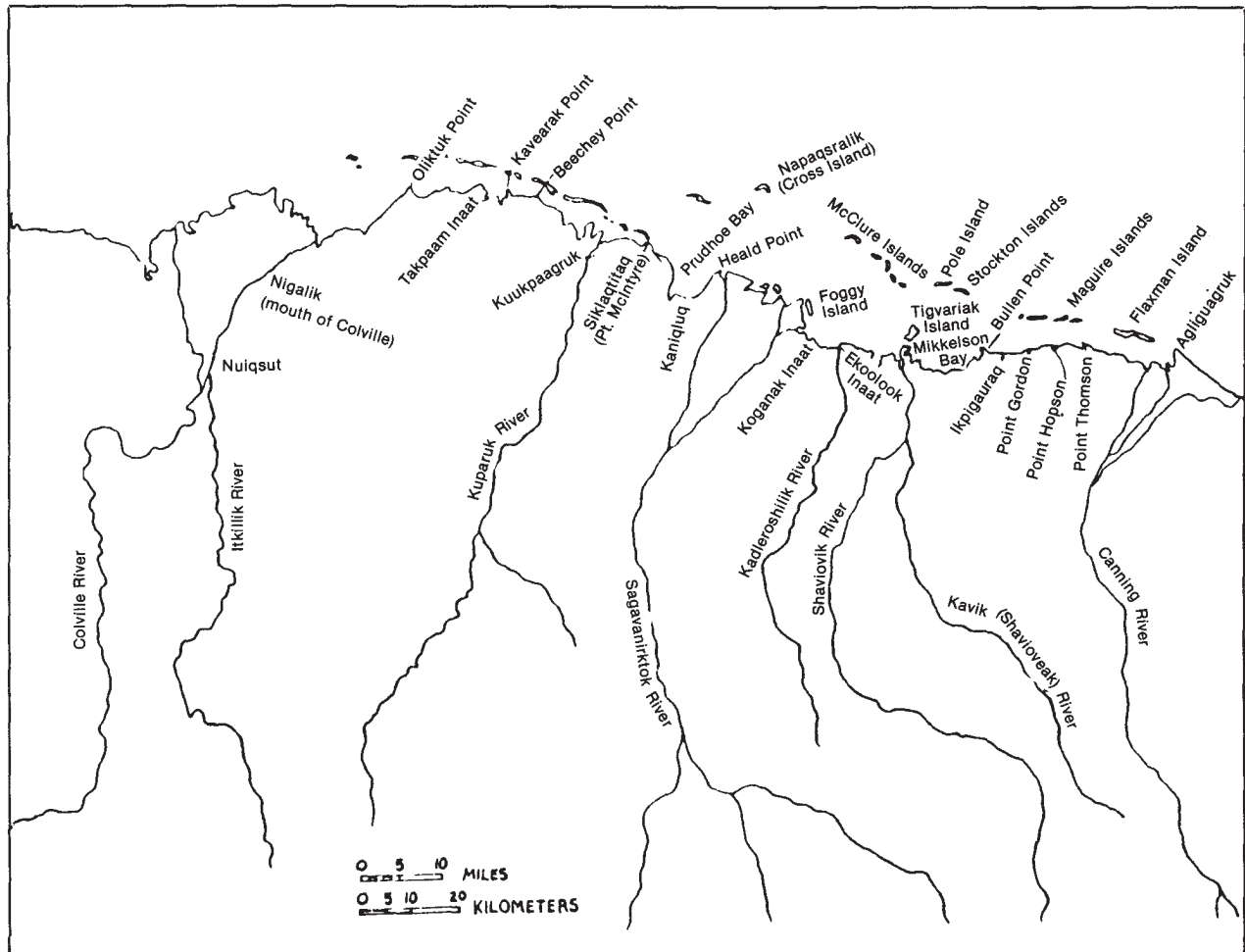
In 1977, the Arctic National Wildlife Refuge set up a field station at Kaktovik and stationed an assistant refuge manager there for the first time. Michael "Jake" Jacobson was chosen for this position. One of his duties was to learn more about the subsistence way of life at Kaktovik. What species did these people hunt? When and how often did they hunt them? What was the relative importance of each animal? Which hunting and fishing areas were most important? These were just some of the questions the refuge was interested in. Jacobson set about learning from local people, travelling and camping with them, and using their expertise by employing some of them in refuge projects.

Meanwhile, the U.S. Department of Interior was directed, under provisions of the Naval Petroleum Reserves Production Act of 1976 (P.L. 94-258, Sec. 105c) to study the historic, cultural, and Native dependence and livelihood values of the National Petroleum Reserve, Alaska (NPRA). An interagency planning team was set up for this purpose, and the team contracted with the North Slope Borough to provide Native Livelihood information for each of its eight villages. While Kaktovik is physically distant from NPRA, it was included in the contract study because it is culturally and politically linked to the rest of the North Slope. Cynthia Wentworth, Mike Jacobson's wife, was hired by the North Slope Borough in January 1978 to do the work in Kaktovik. In 1977, she had served as a U.S. Fish and Wildlife Service representative on the NPRA Planning Team, so was familiar with the needs of the contract study. Funding for the contract study was provided by three Interior agencies: National Park Service (NPS), Bureau of Indian Affairs (BIA) and Bureau of Outdoor Recreation (BOR). Bill Schneider, then anthropologist for the National Park Service, was research coordinator for the study.

In May of 1977, the North Slope Borough's Commission on History and Culture, under the direction of Flossie Hopson, prepared a "Traditional Land Use Inventory" (TLUI) of historic and cultural sites in the Beaufort Sea coastal area. This inventory was published as part of the Beaufort Sea study (Nielson 1977a). The TLUI was a logical beginning point for research on land use values in the Arctic National Wildlife Refuge area. It served as a baseline for compiling additional documentation on those sites that are used by and have special significance to the people of Kaktovik.

While Jacobson was learning more about the area's wildlife resources from local people, Wentworth was expanding on the TLUI for the North Slope Borough contract study and recording information on the local economy. In May 1978 she began mapping subsistence resource use areas of selected Kaktovik residents. This was part of a larger subsistence mapping effort for the entire North Slope, directed by North Slope Borough contract employee Sverre Pedersen and following the Canadian example developed by Milton Freeman (1976). Wentworth interviewed a sample of 13 Kaktovik hunters, representing about one-fourth of Kaktovik households, to determine the extent of the area used in hunting, fishing, trapping, and gathering. Individual responses were combined to determine Kaktovik land use patterns. The Kaktovik

Figure 3.
Mid-Beaufort Sea Coastal Area



maps were then combined with those of all the other villages to provide a picture of land use across the North Slope (Pedersen 1979).

During fall 1978 Wentworth wrote a synopsis of Kaktovik subsistence for the North Slope Borough contract study, which was included in the NPRA summary volume: *Native Livelihood and Dependence: A Study of Land Use Values Through Time* (Wentworth 1979a). Until October 1979 she was employed by the Borough's Coastal Zone Management Program, and compiled Kaktovik historic and subsistence information for the Mid-Beaufort Sea Coastal Zone, the area between the Colville and Canning Rivers. The result of this work was an unpublished report titled "Our Lives and the Beaufort Seacoast: A Kaktovik Historical and Land Use Perspective" (Wentworth 1979b). Much of the information in this report was later published in *Qilīqtuagaksrat Utuqqanaat Iñuuniagninisiquṇ: The Traditional Land Use Inventory for the Mid-Beaufort Sea* (North Slope Borough 1980).

Jacobson continued as assistant Arctic National Wildlife Refuge manager at Kaktovik until May 1980, making several trips to the mountains and along the coast with Kaktovik hunters. During and since that time, we have continued to record information from local residents. Although the following report contains several published

references, most of the information is from the people themselves, whose knowledge of the land and resources stems from a lifetime of use and experience.

Central to our research approach is the concept that historic and present land use values cannot be separated, for ongoing subsistence values are connected with most historic sites and with other historic use areas. These values are ingrained in the memories of the older people and are activated when resources are desired (Schneider 1978). For example, a person may decide to return to the place where he hunted waterfowl in childhood, even though he has not hunted there in many years. For this reason, subsistence use patterns and values cannot be determined by considering only one point in time.

Historic (TLUI) sites are referred to throughout this narrative, as many of them are associated with present as well as historic use. Complete descriptions of the TLUI Sites within the Arctic National Wildlife Refuge are included in Appendix 3. Those TLUI Sites west of the Canning River are called Mid-Beaufort Sea sites and are described in the North Slope Borough publication *Qiniqtuagaksrat Utuqqanaat Iñuuniaġniniisiquṇ: The Traditional Land Use Inventory for the Mid-Beaufort Sea* (North Slope Borough 1980).

If a place name is italicized in the text, it is a TLUI site. If it is followed by the symbol MB and a number, it is a Mid-Beaufort TLUI Site (Tables 2, 3). Often Iñupiaq place name spellings in use today are different from those appearing on USGS maps, and the location may differ slightly as well. When referring to a specific historic site, the place name is italicized and the correct Iñupiaq spelling given (Fig. 4). If referring to a USGS map location, however, spelling is used as it appears on the USGS maps. For example, *Kaṇiññilivik* historic site is in the same general location as Konganevik Point on the USGS map.

Although historic sites are associated with present land use, subsistence activities are not limited to these sites. Some subsistence activities are site-specific, such as fishing, but other activities cover broad areas. Often, the historic site is used as a camping area for pursuing activities which are much more far-reaching. The sites mentioned in this report should not be viewed as the only sites used by Kaktovik people.

Most of the research presented in this document was done while Mike Jacobson was employed by the U.S. Fish and Wildlife Service and his wife Cynthia Wentworth worked on her own and for the North Slope Borough. The report was written, however, while Cynthia Wentworth was a Subsistence Economist with Northern Alaska Ecological Services, a Fish and Wildlife Service station in Fairbanks. During this period Mike Jacobson worked on his own and as an unpaid volunteer to the Service.

CHAPTER 1

Subsistence Setting

Kaktovik's present subsistence area covers the northern part of the Arctic National Wildlife Refuge, as far into the Brooks Range as the headwaters of the Hulahula River. The coastal area west of the refuge may also be used during the summer, often to Flaxman Island and Bullen Point and occasionally to the Shaviovik River and Foggy Island. Although this mid-Beaufort Sea area west of the refuge is no longer the primary one used for subsistence, it is where some present day Kaktovik people were born or grew up, so strong associations remain. Some Kaktovik people also once lived and hunted extensively east of the Arctic National Wildlife Refuge, in Canada.

Even though the term "Arctic National Wildlife Refuge" is used here and included in the title of this report, the people and activities described were present long before 1960, when the area was designated a refuge. Local residents, therefore, do not speak of the place they live as the Arctic National Wildlife Refuge. Also, Kaktovik people normally use the word "catch" rather than "kill" or "harvest" when describing their hunting activities. This stems from the traditional cultural belief that when an animal is taken, its spirit lives on. The Iñupiaq language does not have a word for "kill" in the sense of killing an animal, so when Kaktovik people translate to English they usually say: "I caught a caribou," or "They caught three sheep."

Photo 1. Crossing the foothills near the Hulahula River (M. Jacobson).



Kaktovik residents depend on both marine and terrestrial species for their subsistence. Because the Beaufort seacoast may be locked in by tight shorefast ice for ten months or more each year, winter populations of marine mammals are lower here than in the Chukchi Sea west of Barrow. Walrus are rarely found in the Beaufort Sea even in summer. However, bowhead whales migrate by Barter Island to and from the eastern Beaufort Sea, and the village today has a fall whale hunt. Ugruk and hair seals are also hunted in the summer, and arctic cisco (whitefish) and large arctic char are caught in the coastal lagoons. During the snow season, people catch smaller char and grayling at camps on the Hulahula River. Polar bears are sometimes taken in the late fall and winter when they wander near or into the village.

The caribou is Kaktovik's most important terrestrial subsistence species. Caribou are hunted by boat along the coast in summer, and by snowmachine on the coastal plain, foothills, and mountain valleys during the snow season. Because Kaktovik is relatively close to the Brooks Range, the village also derives a fair share of its livelihood from sheep hunting during winter months.

Trapping and hunting furbearers is another winter activity, which takes place on the coastal plain and in the foothills and mountain valleys. Arctic and red fox are trapped; wolves and wolverines may be trapped or shot. Grizzly bear and moose are taken occasionally, but they are not hunted actively.

Brant, eiders, and other waterfowl, hunted along the coast, provide a welcome change of diet in late spring. Ptarmigan and ground squirrels also contribute to the subsistence diet, and a few people pick berries, wild rhubarb and roots. Driftwood is gathered from the beach and used as supplementary heating fuel by some families. Willows are an important heating and cooking source when camping in the mountains.

CHAPTER 2

History of Kaktovik

Barter Island, as its name implies, has been an important trading center for centuries. Canadian Inuit people met here to trade with Barrow area residents, sometimes while travelling to the trading center at Nigalik at the mouth of the Colville. Inland people also came down from the mountains to trade, and even Indians from south of the Brooks Range visited here occasionally (Nielson 1977b, as cited in Wentworth 1979a).

A large prehistoric village once existed on the island. The Canadian explorer Diamond Jenness counted between 30 to 40 old house sites there in 1914 (Leffingwell 1919). Before the present airport was built on top of this site, many whalebones could be found among the sod house ruins, suggesting that the people were whalers (Kaveolook 1977). (Cora Ungarook's father, Nasunguluk, of Barrow, wintered there in 1916 and used some of these whalebones for fishnet weights). One legend says these prehistoric people, the Qanmaliurat, were driven east to the Canadian side by other Inupiat through fighting. Oral accounts recall that the Qanmaliurat killed one couple's only son, which is why after that there were no more people living at Barter Island. The couple fished their son's body out of the water with a seining net . . . hence the name *Qaaktugvik* (Kaktovik) which means "seining place" (Kaveolook 1977; Okakok 1981). Another legend states that the body fished out of the water was that of Pipsuk, who drowned in the lagoon while fishing from a kayak (see *Pipsuk Point* site description, Appendix 3).

Although Barter Island was not a permanent village, it remained a seasonal home for some of the nomadic ancestors of present-day Kaktovik residents, who used the area in their pursuit of caribou, sheep, sea mammals, fish and birds.

Barter Island was also an important stop for commercial whalers during the 1890's and early 1900's (Nielson 1977b as cited in Wentworth 1979a). In 1917, the whaler and trader Charles Brower sent his associate Tom Gordon from Barrow to Demarcation Point to establish a fur trading outpost for the H.B. Liebes Company of San Francisco. This was part of a larger pattern of trading posts established all along the Beaufort seacoast. Gordon moved to Demarcation with his wife Agiak and family and some of her relatives and friends and their families. After spending about a year at Demarcation, Agiak's younger brother Andrew Akootchook and family moved to the Barter Island area and spent the winter trapping. Finding it to have a good harbor and a convenient and accessible location for hunting on land and sea, Akootchook helped Gordon establish a trading post at Barter Island in 1923 (Kaveolook 1977). Also, the parents of Akootchook's wife, Adam Alasuuraq and Eve Kignak, and their son Ologak and his wife Annie Taiyugaaq, moved over to Barter Island from Barrow to be near the Akootchooks and because it was a good hunting area (Okakok 1981). The trading post provided a market for local furs, and was the beginning of Kaktovik as the permanent settlement of today (Nielson 1977b, as cited in Wentworth 1979a).

During the 1920's and 1930's Barter Island area people congregated at the fur trading post on holidays and other occasions, however most of the time they lived spread out along the coast. They were semi-nomadic, following the animals on which their hunting, fishing and trapping economy depended. The arctic fox was a good source of cash income, and in most years they made a good living by supplementing it with game

(Kaveolook 1977). Many people were also involved in reindeer herding, keeping the three main herds at Camden Bay, Barter Island and Demarcation, and taking the deer to the foothills of the Brooks Range during winter months (Appendix 2).

The Scottish botanist Isobel Hutchinson describes life with the Gordon family at Barter Island in 1933, in her book *North to the Rime-Ringed Sun* (see *Iglukpaluk* site description, Appendix 3). In his published diary of a trip taken in April 1937, Fred Klerekoper (a Presbyterian minister) writes of his stay with the Ologak family near the mouth of the Sadlerochit River (*Aana/aaq*) and with the Akootchook family just east of Barter Island at Bernard Spit (*Tapkak*). Almost all of Kaktovik's present Iñupiat population of 175 is closely related by blood or marriage to these three interrelated families (Appendix 1, Genealogy).



Photo 2. (above) Susie and Andrew Akootchook, about 1948 (Courtesy M. Rexford). Photo 3. (left) Tom Gordon, a Scottish whaler and trader (Courtesy O. Anderson). These people established a trading post at Barter Island in 1923.



The winter of 1935-36 was exceptionally severe, and this caused some very hard times for Kaktovik people. No caribou, few foxes, and very little other game was available. Tom Gordon's trading post had exhausted its food supply and Gordon could obtain no more credit from Barrow. In the spring of 1936 the Office of Indian Affairs from Barrow did a survey of peoples' subsistence and other food intake and general economic condition, to determine if more reindeer should be brought into the area. They found that several families were destitute. Later attempts to bring more reindeer from Barrow to the Barter Island area failed, and reindeer herding ended in 1938 due to a combination of factors (Appendix 2, Reindeer).

The price of fox fur also fell in the late 1930's; consequently, most of the Alaskan trading posts closed by the early 1940's. After Tom Gordon died of a stroke in 1938, no one took over the Barter Island post. The trader at Humphrey Point (*Imaignaurak*) died in 1942, and the trader at Brownlow Point (*Agliġuagruk*) left in 1943. People had to go to Aklavik, Canada to trade. Eventually, several Kaktovik families moved to Herschel Island, Canada, and others built houses at Barter Island.

Hard times continued into the mid-1940's for most Kaktovik people. The small amount of "tannik" or white man's food that they received each summer on the yearly supply ship was not enough to last through the winter, so people relied exclusively on the area's fish and game for survival. Some people went through very lean times one year when game was scarce and they were close to starvation. One man, who was about ten years old at the time, remembers his family going entire days without food. Other days, his mother would fish all day and come home with only one small fish (10-12" long) which she divided among several children.

In 1945 the U.S. Coast and Geodetic Survey began mapping the Beaufort seacoast, bringing some wage employment opportunity to the local economy. Over the next few years at least three Kaktovik people were hired to help with this project.

World War II had little effect on Kaktovik residents, but the postwar military build-up caused major changes. Barter Island was chosen as a radar site for the Distant Early Warning (DEW Line) system, which extended across the Alaskan and Canadian Arctic. This development provided jobs for area residents, and caused several physical alterations to the community including three village relocations. In 1947 the Air Force began building an airport runway and hangar facility on the prehistoric village site, where several houses were located. These houses had to be moved.

In 1951, the entire area around Kaktovik (4500 acres or 1,823 ha) was made a military reserve, and some people had to move again. In 1964, the village had to move a third time, and received title to their present site, though not to the old cemetery nearby (see site descriptions for *Qaaktugvik 2nd and 3rd Location*, Appendix 3); (Nielson 1977b., as cited in Wentworth 1979a).

The availability of jobs resulting from U.S. Coast and Geodetic Survey work and DEW Line construction, and the consequent establishment of a school, caused the Barter Island population to increase rather rapidly. People moved in from the surrounding area and five of the six families living at Herschel Island returned to Barter Island. The U.S. Census had counted 46 people in 1950, but by August 1951 when Harold Kaveolook opened a BIA school at Kaktovik, there were eight families with 86 adults and children. By the spring of 1953, after the Herschel Island families had returned, the population was 140-145 (Kaveolook 1977). The population remained relatively stable until the late 1970's when more employment opportunities and better housing caused some former Barter Island area residents living in Barrow to move back with their families.

While this brief history of Kaktovik reflects outside influences, a more complete understanding of the history of the area comes from the identification and experiences of people out on the land, at the sites and places that sustained them. The next section discusses these places.

CHAPTER 3

Traditional Land Use Inventory Sites

Throughout time, Iñupiat settlements, whether seasonal or permanent, have been situated to take best advantage of food resources. Only a few, such as Kaktovik, have become the permanent villages of today. Many other locations in the northern part of the Arctic National Wildlife Refuge and along the Beaufort seacoast were inhabited in the recent past; up until the 1950's. Thus strong associations remain with these traditional sites, and former residents of these places now living in Kaktovik like to return to them seasonally to fish and hunt. Several people were born at these sites, and some have close relatives whose graves are located at these historic places.

The North Slope Borough's Beaufort Sea Traditional Land Use Inventory (TLUI) identified those sites used in the recent past, beginning about 1910 (Hopson 1977). Many of these sites are also much older and have archeological remains. Some of these and other archeological sites within the Arctic National Wildlife Refuge have been inventoried (U.S. Fish and Wildlife Service 1982). The sites listed in the Borough's TLUI were homes not only for the people now living in Kaktovik, but for other Iñupiat now living in places such as Barrow, Nuiqsut and Anaktuvak Pass in Alaska, and Inuvik, Aklavik and Tuktoyaktuk in Northwest Territories, Canada. Though the site information collected in this report is Kaktovik-based, the sites are also significant to many people living in these other villages.

A census taken by the Office of Indian Affairs in 1938 illustrates the settlement patterns and numbers of people living at some of these sites before the DEW Line postwar buildup of the late 1940's (Table 1).

Table 1.
Population from Brownlow Point to Demarcation Point, 1938.

	Eskimo	White
Flaxman Island	10	
Brownlow Point	36	1
Konganevik Point	7	
Hulahula River	20	
Barter Island	61	1
Martin Point	10	
Tapkaurak	5	
Humphrey Point	9	1
Angun Point	6	
Aichilik	4	
Icy Reef	11	
Pingokraluk	15	
Demarcation Point	12	
Total	196	3

Source: U.S. Bureau of Indian Affairs. 1938.

The following pages briefly discuss those traditional sites still most often used and talked about in Kaktovik. For a detailed discussion of these and other identified sites within the Arctic National Wildlife Refuge, see Appendix 3. Table 2 lists these sites, and Figures 4 and 5 show their locations. Information on Kaktovik's use of the sites west of the Canning River (between the Canning and the Colville) is not included in this report but can be found in *Qiniqtuagaksrat Utuqqanaat Iñuuniagninisiqu: The Traditional Land Use Inventory for the Mid-Beaufort Sea* (North Slope Borough 1980). Table 3 lists these Mid-Beaufort sites.

Table 2.
Traditional Land Use Inventory Sites in the Arctic National Wildlife Refuge.

Iñupiaq Name	English Name	Site Number
Qikiqtaq	Flaxman Island	MB-20
Sirak		
Kuugruaq	Brownlow Point	MB-46
Agliugaagruk	—	1
Tigutaaq	—	2
Kayutak	—	3
Kanjiññiivik	Konganevik Point	4
Katakturak	Katakturak	5
Nuvugaq	Point Collinson	6
Kunugrak	—	7
Aanalaag	Anderson Point	8
Salligutichich	Sadlerochit Springs	9
Sanniqaaluk	—	10
Patkotak	—	11
Sivugaq	—	12
—	First Fish Hole	13
—	Second Fish Hole	14
Katak	Third Fish Hole	15
Kanjich	—	16
Uqpillam Paarja	—	17
Naalagiagvik	Arey Island	18
Iglukpaluk	—	19
—	Tikluk-Akootchook house site	20
Qaaktugvik	Kaktovik (first location)	21
Qaaktugvik	Kaktovik (second location)	22
Qaaktugvik	Kaktovik (present location)	23
Pipsuk	Pipsuk Point	24
Qikiqtaq	Manning Point ("Drum Island")	25
Tapkak	Bernard Spit	26
Tapqauraq	Martin Point and Tapkaurak Spit	27
Uqsruqtalik	Griffin Point	28
Pukak	—	29
Imaignaurak	Humphrey Point	30
Iglugruatchiat	—	31
Angun	Angun Point	32
Nuvagapak	Nuvagapak Point	33
Atchilik	—	34
Siku	Icy Reef	35
Piguqsraluk	—	36
Kuvluuraq	—	37
—	Demarcation Bay — west side	38
—	Old Man Store	39
Kanigluaqpiat	—	40
Pattaktuq	Gordon	

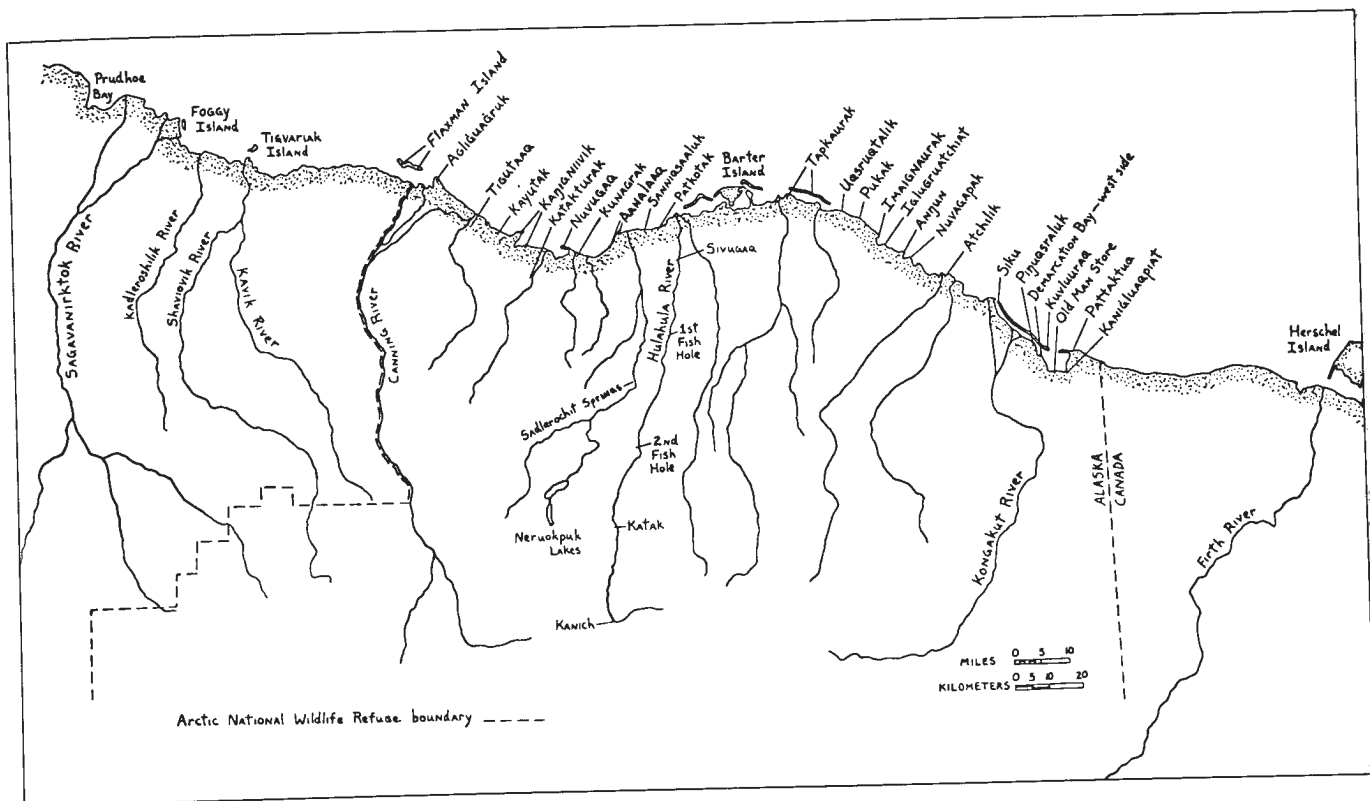


Figure 4.
Traditional Land Use Inventory Sites,
Arctic National Wildlife Refuge Area.

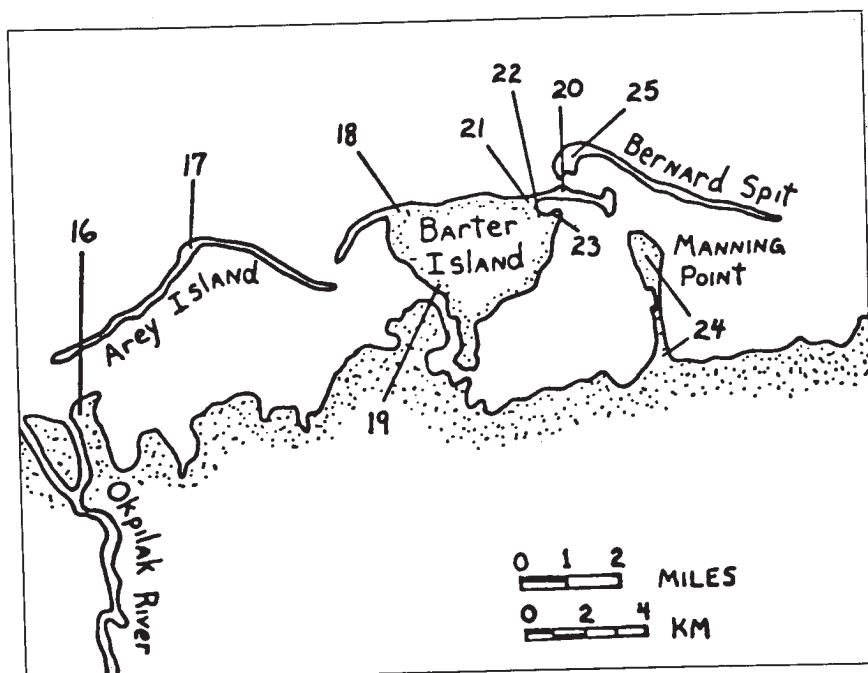


Figure 5.
Traditional Land Use Inventory Sites,
Barter Island and vicinity.

- 16 - Uqpillam Paana
- 17 - Naalagiagvik
- 18 - Iglukpaluk
- 19 - Tikluk/Akootchook house site
- 20 - Qaaktuġvik (Kaktovik - 1st location)
- 21 - Qaaktuġvik (Kaktovik - 2nd location)
- 22 - Qaaktuġvik (Kaktovik - present location)
- 23 - Pipsuk
- 24 - Qikiqtaq - "Drum Island"
- 25 - Tapkak

Table 3.
Traditional Land Use Inventory Sites.
Mid-Beaufort Sea coastal area (Colville River to Canning River).

Iñupiaq Name	English Name	Site Number
Sanniaruk	Spy Islands	MB-1
—	Leavitt Island	MB-2
Pigu	Pingok Island	MB-3
—	Bertoncini Island	MB-4
Nukatpiat	Bodfish Island	MB-5
—	Cottle Island	MB-6
Tapqaqturuaq	Long Island	MB-7
Napaqsraligauraq	Reindeer Island	MB-8
—	Argo Island	MB-9
Niaquq Island	Niaquq Island	MB-10
Napaqsralik	Cross Island	MB-11
—	Foggy Island	MB-12
—	Narwhal Island	MB-13
—	Jeanette Island	MB-14
—	Karluk Island	MB-15
—	Point Lookout on Tigvariak Island	MB-16
Tigvagiaq Island	Tigvariak Island	MB-17
—	Pole Island-Stockton Islands	MB-18
—	Belvedere Island-Stockton Islands	MB-19
Qukiqtaq	Flaxman Island	MB-20
Kuugruaq	—	—
Sirak	Oliktuk Point	MB-21
Uuliktuq	—	MB-22
Ugrugnavaik	—	MB-23
Ugrugnavik River	—	MB-24
Naqaayuq	Milne Point	MB-25
Takpaam Inaat	—	MB-26
Qaviarat	—	MB-27
—	Beechey Point	MB-28
Aquvlat	Back Point	MB-29
Sakunavgak	—	MB-30
Kuukpaagruk	—	MB-31
Siktaqtitaq	Point McIntyre	MB-32
Karjiquq	—	MB-33
Tikigaagruk	—	MB-34
Agliqvurak	Point Brower	MB-35
Koganak Inaat	Koganak's camp	MB-36
Ekolook Inaat	Ekolook's camp	MB-37
Kisium Inaat	Kisik's camp	MB-38
Kakianaam Inaat	Kakianak's camp	MB-39
Sikiagrum Inaat	Sikiagruk's camp	MB-40
Savviugvik River	Shaviovik River	MB-41
Savagvik	Bullen Point	MB-42
Ikpigauraq	—	MB-43
—	Point Gordon	MB-44
—	Point Hopson	MB-45
—	Point Thomson	MB-46
Agliquaagruk	Brownlow Point	—

Flaxman Island. The island is historically significant both as explorer/geologist Ernest Leffingwell's former campsite, and for its continuous usage by Iñupiat for hunting, fishing, and annual trading. Leffingwell's site was placed on the National Register in 1971 and became a National Landmark in 1978. Nearby is the house where the Panningona family lived beginning in 1924. A historic site sign placed over the entry often causes confusion; many think that it is Leffingwell's house. It is still used today by Samuel Panningona's daughter and her husband, who are residents of Kaktovik. Other Kaktovik people sometimes camp and hunt caribou here during summer months. Graves are located on the eastern end of the island.

Agliguaḡruk (Brownlow Point). Historical remains include several structures along the northeast side of the point, and eleven graves of former site residents on the west side. This site is historically and presently important as a summer and early fall fishing area, especially for arctic cisco (qaaktaq). The fur trader Henry Chamberlain had a store here from 1923 to 1943.

Kaḡiññilivik (Konganevik Point). The Ologak family of Kaktovik had a cabin near here, and at least three graves are located here. It is one of Kaktovik's most important caribou hunting areas, in both summer and winter. Historically, people caught caribou here in summer by driving them out to the point, blocking the path between the caribou and the mainland.

Nuvugaq ("POW-D" — Point Collinson). An old village site, George Agiak's family and the Ologak family both lived here off and on during the 1920's. Agiak's mother, Tuuluk, and Richmond Ologak were brother and sister, and their mother, Eve Kignak, also lived with them here. *Nuvugaq* is one of Kaktovik's most important camps for hunting migratory waterfowl, and is used most intensively in late May and early June. This site is used later in the summer for fishing, and at various times throughout the year for caribou hunting. Arctic fox may be trapped here during winter months.

Aanalaq (Anderson Point). The Ologak family lived and herded reindeer in this area in the 1920's and 1930's. Their daughter Masak (Evelyn Gordon) of Kaktovik was born here in 1925. Kunagraḡ, Patkotak, and Anḡik and their families also lived here and herded reindeer. Several graves are located at *Aanalaq*, including that of Adam Alasuuraq, grandfather and great-grandfather to many Kaktovik residents. In the 1940's, a long driftwood pole was erected here for spotting caribou. Now, *Aanalaq* is an important spring camping place and migratory waterfowl hunting area for Kaktovik people. It is also used for caribou and seal hunting, usually in summer.

Sanniḡsaaluk. *Sanniḡsaaluk* means "the place where there are log cabins." Phillip Tikluk Sr. of Kaktovik was born here in a tent in January 1937. It is presently used as a camping area and base for caribou hunting.

First and Second Fish Holes. These fish holes on the Hulahula River are Kaktovik's most popular winter fishing areas. People fish mainly for arctic char (iqalukpik) and grayling (sulukpaugaq). The camps, especially *Second Fish Hole*, are used as take-off points for hunting caribou, sheep, and small game. Although no ruins are visible at these sites, they do have historic significance to people presently living in Kaktovik, who have been using them for several decades.

Third Fish Hole — "Katak." The ruins of a house belonging to Fred Gordon are here. He used to come here by dog team with his entire family, many of whom now live in Kaktovik. It is an important present day fishing spot and camping place, and serves as a base for sheep and caribou hunting.

Kaḡich. Located at the headwaters of the Hulahula River, this site name means "sources of the river." It is the main base camp for sheep hunting. The Agiak family of Kaktovik lived here several winters beginning in the late 1930's.



Photo 4. Fishing for arctic char at the Hulahula River's Second Fish Hole (M. Jacobson).

Naalagiagvik (Arey Island). *Naalagiagvik* means "where you go to listen." Arey Island is named after the whaler and explorer Ned Arey, grandfather of Annie Soplu of Kaktovik. *Naalagiagvik* is a prehistoric and historic village site, with several structural remains still visible. The Akootchook family of Kaktovik sometimes lived at *Naalagiagvik* and kept their reindeer here. Brothers Isaac and Roy Akootchook were both born here in the 1920's.

Naalagiagvik is a key migratory bird hunting camp in late May and early June. It is also a traditional spring and summer seal hunting camp. Fish nets are set around the island in July and August, and arctic char (*iqalukpik*), arctic cisco (*qaaktaq*) and pink salmon (*amaqtuq*) may be taken.

Iglukpaluk. *Iglukpaluk* means "big house seen from far away" and refers to Tom Gordon's trading post built at this site in 1923. Gordon's family was raised here after moving from their earlier post at Demarcation Bay. The family kept a reindeer herd here for many years, and had a large ice cellar where they put up large quantities of fish, especially arctic cisco (*qaaktaq*) caught from the nearby spit. Now, *Iglukpaluk* is a very popular summer fish camp where cisco, flounder (*nataagnaq*) and char (*iqalukpik*) are taken.

Qikiqtaq (Manning Point — "Drum Island"). *Qikiqtaq*, which means "Island," is actually attached to the mainland by a narrow spit. Traditionally, it was used for herding caribou into the water where they could be killed from waiting boats. Now, it is a heavily used spring and summer camping area for migratory bird and caribou hunting.

Tapqauraq (Martin Point and Tapkaurak Spit). House ruins are located near the point across from Tapkaurak Entrance, and on the widest portion of Tapkaurak Spit. The ruins near the point are those of Dan Gordon's old house, brother and uncle to many Kaktovik residents. This site has been a good location for finding waterfowl and gull



eggs. On Tapkaurak Spit are ruins of houses belonging to the trader Gus Masik, and Bruce and Jenny Nukaparuk. Kaktovik people often came here to trade during the 1930's.

Uqsruqtalik (Griffin Point). This is the site of an old village, which was in existence in 1918 when Archdeacon Hudson Stuck and his party stopped here. The Norwegian trapper John Olsen later built a trading post here. When he moved his post to *Imaignaurak* sometime in the mid-1930's, Fred and Dorothy Gordon, who had used *Uqsruqtalik* as a summer fish camp, began living here with their family year-round. Two of their children, Frances Lampe and Thomas K. Gordon of Kaktovik, were born here during the early 1940's. *Uqsruqtalik*, which means "place where there is oil on top of the ground," is one of Kaktovik's most popular summer camps. Fred and Dorothy's children, their families, and others return every July and August to fish, and to hunt seal, ugruk, caribou, black brant, and small game.

Pukak (Pokok). This present day spring and summer camp used by Kaktovik people is near the site of an old and probably prehistoric Eskimo village, shown as "Pokang" on John Simpson's native map of 1853 (Orth 1967). The Singatuk, Arey, and Kayutak families, all related to Kaktovik people, built houses here in the 1920's and 1930's. Today, people hunt waterfowl at *Pukak* in late May and early June, and return in early July for caribou, seal and ugruk hunting and for fishing. In summertime, caribou gather on the sandspits by *Pukak*, to escape the mosquitoes.

Anḡun (Angun Point). *Anḡun* means "oil seep" and it is best known to Kaktovik people for this characteristic. The seepage, which they call "pitch," was formerly used as a heating fuel. Archdeacon Hudson Stuck refers to his party's stay at the native village of

Photo 5. Singing and dancing at Igluḡpaluk in the 1920's. Left to right: Koonana, Alec Gordon, Ellis Tikluk, George Agiak, Levi Griest, Charlie Gordon, Lloyd Piquq, Daniel Okomailuk, Olive Anderson (Courtesy O. Anderson).

Anġun in April 1918. In the 1920's and 1930's, Tommy Uiiñiq Gordon and his family often stayed at a shelter cabin at *Anġun* on trips between Barter Island and Demarcation Point.

Siku (Icy Reef). *Siku*, which means "ice" in Iñupiaq, is an old and probably prehistoric village site which was observed by the explorer N.A. Hooper in 1849 (Nielson 1977a:29). The explorer and former whaler Ned Arey was living here with his family in April 1918 when Archdeacon Hudson Stuck and his party visited. Tommy Uiiñiq Gordon of Kaktovik was born at *Siku* in April 1921. The site still has a visible marker and two old houses, one of which belonged to Uiiñiq's father Mickey Gordon. Some of the families at *Siku* during the 1930's were the Taktuks and Kayutaks, including Kayutaks' daughter Annie Soplū of Kaktovik.

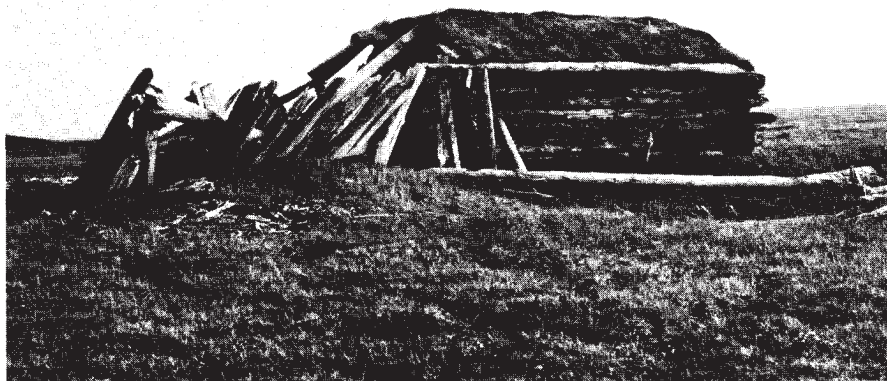


Photo 6. Old house, now vacant, at *Piñuqsraluk*. (M. Jacobson).

Piñuqsraluk. The brothers Joe and Ed Arey both had houses here, one of which was bought by Mickey Gordon in 1929. The Mickey Gordon family and several other families lived here for various periods during the 1930's. The remains of several structures are still visible at *Piñuqsraluk*: three houses are still standing. A small graveyard is located just south of the houses.

Pattaktuq (Gordon or Demarcation). *Pattaktuq* means "where the waves splash again and again." The trader Tom Gordon established a trading post here in 1917, with the help of his brother-in-law Andrew Akootchook. This post remained active until the late 1920's. Athabaskan Indians from south of the Brooks Range came here to trade both in summer and winter. Akootchooks' son Perry was born here in 1918, and Gordons' youngest daughter Olive Anderson in 1922.

DEW Line construction in the 1950's altered the physical appearance of this site, and the houses were washed away due to beach erosion. The area is still used for camping, hunting and fishing and as a stopover place when Kaktovik people are making snowmachine or boat trips to visit relatives and friends in Canada.

CHAPTER 4

Land Use Patterns Over Time

Present day land use patterns in Kaktovik are very much a function of family tradition and personal experience. Families have a tendency to return to those places where parents lived or camped in their youth.

As already pointed out in the Kaktovik history section, Barter Island people were once more nomadic and scattered than at present. Much of the population that congregated at Barter Island in the 1940's and 1950's had formerly lived at other locations, mostly along the coast within 75 miles (121 km) east or west of the island. Today, people often return to these places to hunt, fish and trap and carry on associated cultural traditions of cooperative group activities and sharing. In summer they travel along the coast by boat, as far as the Canadian border to the east and Foggy Island to the west. The winter snow cover greatly expands travel options, and people take snowmachines not only across the coastal plain but inland as far south as the Hulahula River's source in the Brooks Range.

People congregated at Barter Island initially because of wage employment opportunities. A school was established in the early 1950's and this further increased the Barter Island population. The requirement that children attend school, the introduction of other government services, and the continued availability of employment opportunities have helped to perpetuate the permanent village. However, the people have a desire and need to continue their land-related pursuits in spite of these material changes. The changes in living patterns of Kaktovik residents are largely a result of changes in the type of cash economy which has supported them. Although they have lived in a mixed economy which combines cash with hunting since the late 1800's, only since the late 1940's has the employment pattern restricted them to one place. Before that time, Barter Island area residents earned cash through the land-based activities of fur trapping and reindeer herding. These pursuits, as well as the traditional hunting and fishing activities, required that they live spread out from each other and be somewhat nomadic.

The establishment of a permanent village and the arrival of modern technology and its amenities, including changes in hunting and fishing technology, have increased people's need and desire for cash. This need for more money means spending more time in the village earning it. Those who have permanent jobs arrange their subsistence activities around their jobs by hunting on weekends and during leave time. Often they schedule their vacations around their favorite subsistence activity. Those who have seasonal or intermittent jobs are free to be full-time subsistence hunters the rest of the time, and those who have retired can hunt when they please. It is rare, however, for people to leave the village for more than a few weeks at a time. The advent of snow machines means they can travel much faster in a shorter period of time. For example, it used to take two days by dog team to get to the second fishing hole on the Hulahula River, but now it takes only four hours. Therefore, it is now possible to go to the Hulahula River for the weekend, although almost everyone who goes stays a week or two. The expense of gas and the work involved in hauling all the supplies make people want to stay more than two or three days, to say nothing of the pleasure they derive from these seasonal trips to the mountains (Wentworth 1979a).



Photo 7. Perry Akootchook inspects his snowmachine at a Sadlerochit River camp (M. Jacobson).

Several different examples of Kaktovik people's land use patterns over time have been compiled (Appendix 4). These examples document historic use of the Traditional Land Use Inventory (TLUI) sites as well as subsistence activities. Summaries of three of these examples will be presented here to illustrate the variety of land use patterns and personal experiences of residents.

Tommy Uin̄ñiq Gordon

Tommy Uin̄ñiq Gordon was born at *Siku* (Icy Reef) on April 25, 1921. His birthplace means "ice," and his Iñupiaq name Uin̄ñiq means "flooding, unsafe ice," which describes the ice conditions at the time he was born. He grew up mostly at *Pattaktuq* in Demarcation Bay, where his grandfather Tom Gordon had established a trading post in 1917. He also lived at *Pinuqsraluk* just west of the Bay. This was where he learned to handle a shotgun, and in the spring of 1930 he put 50 brant in the ice cellar. Uin̄ñiq used to hunt and fish with the Norwegian trader John Olsen, who had a trading post first at *Uqsruqtalik* (Griffin Point) and then at *Imaignaurak* (Humphrey Point). Uin̄ñiq sold Olsen seal oil, and polar bear hides and other furs. The bounty on wolves at that time was \$20. Each spring Olsen would go up the Okpilak River valley to look for gold, and Uin̄ñiq would sometimes help him haul supplies. Olsen kept his exact prospecting locations a secret, however. Nevertheless, the old boiler that he used is still in the Okpilak Valley.

The winter of 1935-36 was a very poor one for subsistence. Uin̄ñiq's family lost its fish nets, hunting gear, and boats in a bad wind, and there were no caribou. Uin̄ñiq and his sister walked from Demarcation to Barter Island three different times to buy food, a one-way distance of 60 miles, and they had to ration themselves to one-half flapjack each per day. One area resident, Joe Arey, starved to death in the mountains that winter.

Usually in winter, Uĩññiq and his family would spend time hunting and fishing in the Kongakut River valley. He often got Dall sheep, especially during the late 1930's and early 1940's, but he never took more than ten per year. Before this, few sheep were found in the Kongakut as they were too heavily hunted for the commerical whalers living at Herschel Island.

One year the family spent the entire winter (September 1942 to March 1943) in the Kongakut Valley, at the Pungautilik River near the British Mountains. Uĩññiq remembers what he got in the way of game that winter: eight wolverine, one white fox, one cross fox, two red foxes, nine sheep (all in one day) and one brown bear. He and his father would bring supplies from Aklavik, N.W.T. to the rest of the family at the Kongakut valley camp every month, walking while eight dogs pulled the sled.

After the Alaskan trading posts closed down, Uĩññiq moved to Herschel Island, Canada, living there from 1943 to 1953. In the fall of 1943 he got two bearded seals and nearly 70 caribou, and stored them in ice cellars at Demarcation and Herschel Island. This proved to be a wise decision, for the next spring his brother's family at *Uqsruqtalik* (Griffin Point) was struck by the flu epidemic and needed meat badly.

Uĩññiq and his wife moved back to Alaska in 1953, and settled at Barter Island. Most of his brothers and sisters stayed in Canada, and now live in Iñuvik and Tuktoyaktuk, N.W.T.

George and Nora Agiak

George Agiak, another Kaktovik resident, was born at Barrow in 1909 and lived at Wainwright until he was 12 years old. In 1921, his family went to Banks Island, Canada to trap, travelling on the two masted schooner *Lydia*. However, the Canadian government would not allow them to trap, so they subsisted solely on hunting and fishing until they returned to Alaska in the summer of 1922.

Photo 8. Nora Agiak, Marjorie Piquq, Priscilla Tikluk, and Rhoda Nageak row a boat at Barter Island in the 1920's (Courtesy O. Anderson).



The family lived much of the time at *Siktaqtitaq* (MB 31) on the west side of Prudhoe Bay. George often travelled to the Colville River to fish, and one time caught about 2000 fish there. In the late 1920's he helped catch a whale at Cross Island.

George married Nora Gordon in 1931, at Barter Island. She was born in Barrow in 1911, but in 1917 moved to *Pattaktuq* in Demarcation Bay where her father, Tom Gordon, established a trading post. The family moved again in 1923 when Tom Gordon established a trading post at Barter Island.

Until 1943, Nora and George lived much of the time at *Siktaqtitaq*, taking frequent trips in the wintertime up the Kuparuk, Sagavanirktok, and Shaviovik Rivers to hunt and fish. One of their sons was born in November 1943, at a small house they built far inland on the Kavik (Shavioveak) River. They also lived for a while at *Nuvugaq* in Camden Bay. They often travelled to Barter Island and to Beechey Point for visiting and trading.

In the late 1930's, Agiaks made their first trip to *Kanich*, at the headwaters of the Hulahula River, and spent two months there. They have continued to go to *Kanich* over the years during the winter, sometimes staying for several months at a time.

When the Alaskan trading posts closed down in the early 1940's, the Agiaks could no longer trade their fox skins for necessary store items. After spending some time on the Aichilik River and at *Uqsruqtalik*, they moved to Herschel Island, Canada. Three of their children were born there, and have dual U.S.-Canadian citizenship. The Agiaks moved back to Barter Island in the spring of 1952, and George got a job working for the U.S. Coast and Geodetic Survey.

Mary Sirak Akootchook

Mary Sirak Akootchook, also a Kaktovik resident, was born at Flaxman Island in September 1921, right after her family moved there from Barrow. She was named Sirak because this is one of the Iñupiaq names for Flaxman Island. It means animal den, or in this case, "place where polar bears go to get covered up with snow to have their cubs."

Mary's family, the Panningonas, usually spent winters at the house they built near the Leffingwell house site on Flaxman Island. From here they trapped, hunted ptarmigan, and netted seal. However, they also lived a semi-nomadic lifestyle, moving seasonally to where the fish and game were. In March or April, they would travel up the Staines River by dogteam, hunting caribou and ptarmigan along the way. When they reached Ignek Creek on the Canning River, they would stop to fish through the ice for a while. From here they travelled northwest for about 20 miles, using two dogteams to cross over the mountains. They fished at the warm springs on the Kavik (Shavioveak) River. Then they went down the Kavik to its confluence with the Shaviovik River, and down the Shaviovik to the coast. Here they would visit people living at *Savviugik River* (MB 40), then return to Flaxman Island while ice was still firm enough for dog sled travelling.

In springtime, Panningonas hunted waterfowl, mainly eider ducks, on Flaxman Island and other barrier islands. In summer and early fall, they often moved to their summer fish camp at *Agliguagruk* (Brownlow Point) where they caught many char and arctic cisco and shot black brant in the fall. Mary and her sisters hunted caribou along the coast as far as three or four miles inland, and did a lot of backpacking to bring the meat out. They hunted seal on the outer side of the barrier islands, throughout the year when there was open water.

Trapping was a winter occupation, and Mary learned to trap while still a young girl. The family's arctic fox traplines extended from Flaxman Island to *Point Gordon* (MB 43) and all the Maguire Islands. Mary also trapped red and cross fox as well as arctic fox along the entire length of the Staines River.

Mary hunted ptarmigan on Flaxman Island and Brownlow Point during winter and early spring. She can remember having ptarmigan for breakfast, lunch, and dinner day after day during lean times. The family also trapped snowy owls for food.

The Panningonas stored waterfowl, fish and other game in their ice cellar on Flaxman Island. Many times in fall or winter they had visitors who were very hungry, so they would feed them from the birds in the ice cellar. Food was scarce during the winter of 1939-40, when several present-day Kaktovik residents were living on the Shaviovik River. Two of them came to Panningonas' on Flaxman Island to get birds, seal oil and fish to take back to another person who otherwise would have died of starvation (North Slope Borough 1980: 147; Appendix 4).

These three examples of Kaktovik land use patterns over time demonstrate the difficulties of living off the land, the mobility of a hunting and trapping society, and the development of historic associations with historic places. The examples show the significance of the land and of the seasonal and yearly variations of resources in the people's way of life, a significance which continues to this day. The traditional significance of the land is expressed culturally in a continually evolving subsistence economy.

CHAPTER 5

The Land and the Subsistence Economic System

The Iñupiat Eskimo living in the area of what is now the Arctic National Wildlife Refuge have always sustained themselves by living off the meat, fish and fowl taken directly from the land and sea. Their culture is based on this close economic relationship with the natural environment. This is what is meant by "subsistence economic system." The contemporary Kaktovik economic system is a merging of this subsistence dependence with modern monetary elements, operating within the Iñupiat cultural context (Wentworth 1979a).

Since the late 1800's, the North Slope Iñupiat have been living with an economy which combines subsistence and cash. Some of the ancestors of Kaktovik residents, both Native and white, were commercial whalers working out of Barrow and Herschel Island. Commercial whaling declined by about 1910, and fur trapping took its place as the main source of cash income. Kaktovik people combined subsistence with trapping and reindeer herding as they moved from place to place.

As already outlined under "History," Kaktovik people began working for wages in the late 1940's. This increased their economic security by adding to the subsistence economy and providing an alternative to the less stable economies of trapping and reindeer herding. Despite these and many other changes, however, hunting and fishing have remained the main source of protein, the foundation of the Native diet, and the source of certain Arctic cold-weather clothing. They have also provided the basis for the relationship with the land, the group activities, and the sharing of resources that is central to the Iñupiat culture (Wentworth 1979a).

From 1950 until the 1970's, the Barter Island DEW Line Site and related construction were the main sources of local wage employment. A few jobs were also available in the village: at the post office, the store, or the school. Although full time as well as temporary seasonal jobs were available at the DEW Line Site, the rigid nine hour a day, six day a week schedule left no time for subsistence activities except during vacations. Cross-cultural problems also made work at the site unpleasant for many.

After passage of the Alaska Native Claims Settlement Act (ANCSA) in 1971 and creation of the North Slope Borough in 1972, more village jobs became available, increasing people's work options. By the late 1970's many people had left their jobs at the DEW Line Site and were working for the North Slope Borough, the village corporation organized under ANCSA, and in Borough funded village housing and public building construction.

The new village housing and associated costs greatly increased people's needs for cash, requiring them to make house payments, and pay rising electricity and fuel bills (Table 4). This in turn, has made it necessary for them to work longer hours. However, the North Slope Borough jobs are generally more flexible than the DEW Line jobs allowing more time off for subsistence activities. By 1981, only three Iñupiat were still working at the DEW Line Site.

Table 4.
Kaktovik fuel prices, 1977-1982

	Stove oil (55 gal.)	Gasoline (55 gal.)	White Gas (5 gal.)	2 Cycle Oil (1 qt.)	Propane (100 lb. bottle)
Price	\$ 45.10	\$ 68.75	\$ 15.00	\$ 1.56	\$ 67.50
Date	7/77	9/77	10/77	7/77	7/77
Price	104.50	68.75	—	2.00	88.00
Date	5/78	5/78	—	5/78	6/78
Price	64.90	69.30	16.50	—	—
Date	11/78	11/78	11/78	—	—
Price	64.30	69.40	—	—	78.00
Date	6/79	6/79	—	—	6/79
Price	—	120.00	—	—	—
Date	—	2/81	—	—	—
Price	95.70	102.85	—	—	91.00
Date	8/81	8/81	—	—	8/81
Price	109.45	123.75	28.75	2.16	170.00
Date	10/81	10/81	10/81	10/81	10/81
Price	109.45	123.75	28.70	2.45	112.10
Date	4/82	4/82	4/82	4/82	4/82

The great increase in Borough funded jobs in the late 1970's brought rapid changes to Kaktovik. Much more money and amenities are now present than ever before. In addition to new housing, a high school and a gymnasium with a small swimming pool, and a public safety building have been built. A firehall and new community center-medical clinic are soon to follow under the North Slope Borough's capital improvement program. Villagers now have satellite television and telephones in every home.

The many outward changes, however, have not brought substantial changes in socio-cultural values. Although the village corporation must and does operate as a profit-making business, ideas of sharing money and other resources in the present take precedence over making money for the future. The economic system operates through the strong kinship ties and alliances of the extended family, as every Iñupiaq in Kaktovik is related. Sharing is especially prevalent with Native food but also with store bought goods. For example, families go camping together and think nothing of sharing hundreds of dollars worth of store-bought food with everyone in camp. Except for a very limited amount of arts and crafts production relying on local fish and wildlife resources, Kaktovik people do not operate private businesses. The only real entrepreneurs in the village are two non-Natives.

One reason these inner socio-cultural values remain intact is that, even though rapid changes have occurred in the village, the surrounding landscape has not changed appreciably. People can still return to their traditional camping, hunting and fishing sites — places where they grew up — and find them much as they remember them. And they can do the same activities at these sites, as they have always done, in a familiar setting. Outings to these places and the land around them provide a chance for maximum cultural privacy away from the rules of modern village life and the outside world. The outings afford the opportunity to strengthen family and kinship ties and the community values of sharing and helping each other.

Although the Iñupiat greatly enjoy these outings on the land, they do not view them as outdoor recreation. To the Iñupiat, subsistence is serious work as well as a favorite way to spend time, since work and pleasure cannot be separated the way they are in western cultures. They get their greatest pleasure and sense of fulfillment from subsistence related work.

In the non-Native world view, land is either "developed" for economic purposes or "preserved" and available for wildlands recreation. But in the Iñupiat world view, land in its natural state is an economic provider as well as a source of pleasure. Just as non-Natives may have a difficult time understanding why subsistence is viewed as a necessity when it is no longer a question of physical survival, Iñupiat sometimes have a hard time understanding the motivations of a wilderness hiker. Thus the significance of outings on the land is part of the Iñupiat world view of economic reality even though most people also work for wages.

Iñupiat decisions about earning and spending money are affected by their cultural views regarding the land and what is important, and thus differ from the outsider's viewpoint. For example, an important reason for earning and spending money is to buy better subsistence equipment such as snowmachines, outboard motors, and rifles to be a more successful hunter, a very important cultural value. A person's standing within the community is directly related to success as a food gatherer. Similarly, people use their cash incomes to support relatives or to buy goods to share with them, just as subsistence harvests are shared (Wentworth 1980). Much money is also spent on plane tickets to visit relatives in other villages, or to have them visit Kaktovik. In this sense the airplane has replaced the dog team in carrying on the cultural tradition of travelling great distances to visit — a tradition that existed long before the Iñupiat of this area lived in permanent villages.

Another reason earning and spending patterns differ from those of outsiders is that Native food, one of the main cultural and economic needs, cannot be bought with money. Of course, spending money on better hunting equipment and spending time maintaining it is an indirect way of buying Native food, but the food itself cannot be purchased directly in Kaktovik. It must be worked for, or "earned," by hunting. So it follows that, once a certain level of needs requiring cash have been met, a person would rather spend his time hunting than earning more cash. The price of food in the local store, its inconsistent availability, and the lack of locally available fresh grocery meat and produce at any price add an additional incentive to subsistence hunting (Table 5).

Table 5.
Kaktovik staple food prices — 18 items.

Food item	Unit	Fairbanks ¹ 6/13/78	Kaktovik ² 6/16/78	Fairbanks ¹ 7/6/79	Kaktovik ² 7/3/79	Fairbanks ¹ 10/12/81	Kaktovik ² 10/3/81
Round steak ³	1 lb.	\$ 3.22	none (4.08)	\$ 4.21	\$ 4.20	\$ 3.04	none (4.30)
Hamburger ³	1 lb.	1.79	none (2.03)	2.52	2.25	1.59	none (2.57)
Pork chops ³	1 lb.	2.84	none (3.57)	2.49	none (3.34)	2.52	none (4.37)
Chicken ³	1 lb.	.79	none (1.68)	.79	1.50	.85	none (1.69)
Tuna Fish	6.5 oz.	1.03	none (1.39)	1.07	none (1.39) ⁴	1.49	2.13
Spam	12 oz.	1.73	none (1.96)	1.54	2.29	2.15	none (2.20)

Table 5 (continued).
Kaktovik staple food prices — 18 items.

Food item	Unit	Fairbanks ¹ 6/13/78	Kaktovik ² 6/16/78	Fairbanks ¹ 7/6/79	Kaktovik ² 7/3/79	Fairbanks ¹ 10/12/81	Kaktovik ² 10/3/81
Pink salmon (canned)	15.5 oz.	2.40	none (3.00)	2.21	none (3.00) ⁴	3.09	4.82 ⁵
Butter	1 lb.	1.65	none (2.83)	1.84	2.51	2.14	5.35
Evap. milk	14.5 oz.	.50	.72	.56	.72	.70	1.31
Flour	10 lb.	2.90	4.48	3.40	4.69	4.01	8.06
Sugar	10 lb.	3.24	4.84	3.47	5.10	4.77	12.96
Eggs	1 doz.	.94	none (1.61)	.90	1.72	1.20	1.85
Rice	28 oz.	1.17	1.68	1.25	1.60 ⁵	1.69	3.28
Tomato soup	10.5 oz.	.31	none (.52) ⁴	.37	.54	(.44 not used in total)	none (price not avail.)
Grapefruit juice	.46 oz.	1.22	none (1.95) ⁴	1.34	1.99	1.95	3.57
Coffee	3 lb.	10.80	15.34 ⁵	10.44	15.37 ⁵	8.26	16.63 ⁵
Loose tea	1 lb.	4.24	4.85	4.31	5.00	(5.19 not used in total)	none (price not avail.)
Pilot bread	2 lb.	2.07	2.66	2.29	2.89	2.67	3.67
Totals		\$42.84	\$59.19	\$45.00	\$60.10	\$42.12	\$78.75

Kaktovik prices as %
of Fairbank's prices

¹ average for 2 stores

² Prices in parenthesis are what the item would have sold for if available. Kaktovik got meat in their store 6 October 1981, after 2 months without any due to spoilage problems in shipment.

³ Fairbanks prices are for fresh meat except for frozen chicken; Kaktovik prices for frozen meat.

⁴ Previous year's price.

⁵ Price extrapolated to fit size of container.

Earning and spending patterns, then, are at least in part culturally determined. Some North Slope employers operating in Kaktovik become disillusioned with hiring local Iñupiat people because "they won't stay at jobs" even when offered very high wages. This is an illustration of how differing cultural values influence economic choices about wage work.

In any society, a person will work only up to the point at which the costs of working, in terms of time given up, equal the benefits. When the costs of giving up this time begin to exceed the benefits, measured in money, the person quits working. For the Iñupiat, this point is often reached earlier than in the non-Native society, because the value to them of what they could buy with that extra money is not worth giving up the extra time. Put simply, giving up that extra time is just not worth the price.

This follows the economic theory of the supply of labor and wage rates, which is based on the idea that in any society, people's attitudes about earning money are influenced not only by what they want to buy with it, but by what they have to give up to earn it. To get a person to work, you must pay him to give up his leisure time. The more hours of leisure time he gives up, the more valuable his remaining leisure time gets, so the more he must be paid for each hour given up. This same principle also applies in Iñupiat society, only more so because of subsistence. People must either give up subsistence activities while they are working, or do them in place of their leisure time, which makes their remaining leisure time just that much more valuable.

This time conflict between wage work and subsistence is reconciled in a variety of ways. Some people are employed only seasonally. In some families the wife works leaving the husband free to hunt. If the husband is working the wife may go hunting with her sons or other relatives (Worl 1979). Village people who work at the DEW Line site schedule their annual two month vacation around the hunting activities most important to them. One man who retired from the DEW Line site after 25 years now hunts year-round for younger members of his extended family. The more flexible work schedules of the North Slope Borough jobs allow people time off for subsistence activities. "If we need meat, our boss won't hold us," one hunter says.

Because subsistence is an extended family and group activity and because subsistence harvests are shared, an individual may decide to work for wages instead of going out hunting, but he or she will still likely receive meat from relatives. It remains true, however, that the very high wages paid in Kaktovik not only reflect higher living costs, but are also a reflection of the "price" people pay to give up some of their freedom to pursue subsistence activities.

Earning and spending patterns are not the only economic variables affected by cultural values. A person's skills and abilities are also largely determined by his culture. An Iñupiaq working for wages may be very skilled at his work. But chances are, it's not the area in which he is most skilled. His best skills are not necessarily obvious in the village, but become apparent out on the land and sea.

Photo 9. Whaling captain Issac Akootchook with maktak from large bowhead whale killed fall 1981 (C. Wentworth).



While Kaktovik's move into the modern wage economy has brought many advantages, it has also meant certain sacrifices. In the day-to-day life of the wage economy, Kaktovik wage earners operate in an environment that does not need their cultural skills or give them many chances to excel. The boss is almost always a non-Iñupiaq. The Iñupiaq worker is being supervised and told what to do by someone else.

However, when this same Iñupiaq is hunting or travelling on the land, sea or sea ice, he is his own boss. Moreover, he is likely in charge of the situation. His superior knowledge, endurance, and ability to cope with the weather and terrain may make the non-Iñupiaq supervisor, if the two travel together, feel like "the supervised." If the non-Iñupiaq gets caught in a survival situation, he may depend on the Iñupiaq. These land-related and survival abilities are sources of Iñupiat identity and pride. Kaktovik people often illustrate their feelings through stories, such as the following: In the 1950's, A DEW Line supervisor who was stationed at Barter Island reportedly "didn't like Eskimos." Among other things, he would not allow them to shop at the DEW Line store or use the other facilities even if they were employed there. However, one time he and his driver became lost in a severe snowstorm between the DEW Line site and the DEW Line's lower camp a short distance away. A military siren alerted the village to the emergency, and villagers then organized a search party and went to look for the missing men. They found them just 500 feet from the site. The supervisor was sitting in the tracked vehicle in a state of shock with the door wide open. Villagers had to help him out of the vehicle because he could not move. He felt that they saved his life. He later opened the DEW Line store and gave them whatever they wanted for free, and from that time on he always liked Eskimos.

A principle of international economics states that world production will be most efficient if each country produces not necessarily what it can produce better than any other country, but what it can produce best. Northwest Alaska Iñupiat leader Tony Schuerch has stated "I'm sure the Eskimos are going to survive as a people, because survival is that thing we do best" (Magdanz 1979: 19). Likewise in Kaktovik, land related skills of subsistence and survival are what the people do best because in their world view, these are what are necessary, important, and fulfilling.

Subsistence-related skills notwithstanding, however, Kaktovik people must earn enough money to meet the high cost of living in modern Kaktovik. House payments of several hundred dollars per month, and fuel, electricity, water and telephone bills are the price of participating in the benefits of modern material goods. Energy prices, especially, are extraordinarily high on the North Slope. Energy and imported food costs rise not only due to world trends and inflation but also as transportation costs rise (Tables 4 and 5). Fuel oil and gasoline are almost twice as high in Kaktovik as in Fairbanks, and propane is three to five times as high depending on freight method. In October 1981 Kaktovik food costs were 87 percent higher than Fairbanks, which is already 33 percent higher than the national average. The difference between Kaktovik and Fairbanks food prices has been widening rapidly, for in 1978 and 1979, Kaktovik food prices were only about 35 percent higher than Fairbanks. This widening price difference is typical of what is happening between urban and rural Alaska generally as energy prices and transportation costs to "the bush" rise (Table 5; Cooperative Extension Service 1974-80).

In addition, the Kaktovik store is not a reliable source of economic security. Irregular air freight service due to arctic weather conditions, associated time delays, and lack of economies of scale prevent the Kaktovik store from stocking fresh milk and produce and many other items. A person cannot rely on the store to have any one thing at any one time, and it is not uncommon for items to arrive damaged or spoiled. The nutritional importance of subsistence in such an environment is obvious. While much of the modern Iñupiat diet comes from store-bought foods, these tend to be foods of low nutritional quality. Even the frozen beef, chicken and pork, which is much more popular in Kaktovik than canned or frozen vegetarian items, is not as nutritious as Native foods. Subsistence harvested meats and birds are high in protein and low in fat, plus they contain some essential vitamins and minerals not found in domestic meat and poultry. Caribou and seal have twice the protein as an equivalent amount of beef. Marine mammals have many times more Vitamin A and ten times as much iron as beef, and ptarmigan has twice the thiamine of chicken. Seal and whale oil, which is 100 percent

energy, is polyunsaturated and does not predispose one to heart disease (Cooperative Extension Service 1974; Worl 1979; Hurwitz 1977; Milan 1979; Nobman 1978).

Several attempts have been made to place an imputed dollar value on the subsistence resources that rural Alaskans depend on, to estimate the loss in dollar terms if they could no longer secure food by hunting and fishing (U.S. Department of Interior 1974). Assuming that each Kaktovik person consumed 500 pounds of subsistence harvested meat and fish each year (Ibid 1974) at an average imputed price of \$4.00 per pound (T-bone steak was over \$7.00 per pound in October 1981), the gross dollar amount for each man, woman, and child would be \$2000 per year. For the village of 175, it would be \$350,000 per year. However, if the government were to pay for losses of Native food by giving people store bought substitutes, this would likely insult and anger the people, as it would be regarded as an affront to their culture and a form of welfare that took away their ability to lead productive lives (Association of Village Council Presidents 1978; Adams 1981). In the words of one resident:

Several years ago, the government came to Kaktovik with free handouts of beef roasts and chicken because they thought we were short of caribou. This didn't consider the people's feelings. It's sad when Eskimos move to town and try to make duck soup out of chicken, and caribou stew out of beef. It's sad because it's just not the same. When I'm in town and can't get any Native food, I can't really get used to it because I never feel filled up. My body is still craving something, it isn't satisfied.

Traditional food gathering activities contribute to mental health by providing necessary stability and cultural identity. Subsistence activities strengthen the family unit, provide meaningful work, and fulfill needs for personal self-reliance, self-esteem, and self-fulfillment (Hurwitz 1977).

Photo 10. Loaded sled near Arctic Creek on the Sadlerochit River (M. Jacobson).



In conclusion, jobs and money are an important part of life in modern Kaktovik. But in the Iñupiat view, they are not replacing the land as the permanent source of security and well-being. Kaktovik's Mayor Archie Brower has stated, "The Brooks Range all the way to the ocean is our garden. We feed on that — the sheep, caribou, fish, seals, and whales" (Brower 1979). The essence of the economic importance of the fish and wildlife to Kaktovik people lies not only in their needs and preferences for subsistence foods, but in their ability to provide their own food from the area in which they live.

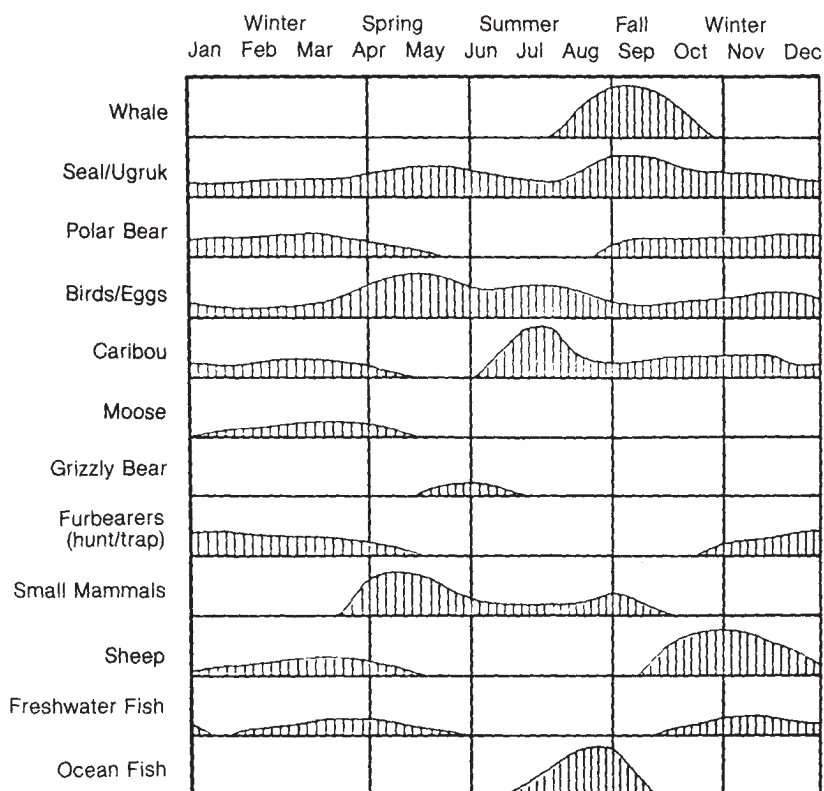
CHAPTER 6

Yearly Cycle

Kaktovik peoples' yearly cycle of subsistence activities has followed the same general pattern since the early part of this century (Figure 6). Hunting techniques have changed due to the recent application of new technology, however, and relative emphasis on certain species has changed. Bowhead whales, for example, were not hunted in historic times at Kaktovik until 1964 (although some Kaktovik people hunted them at other locations) and many more seals were hunted prior to the mid-1960's when people used dog teams as the main mode of transportation.

Subsistence activities at Kaktovik vary both by season and by year, according to many factors. These seasonal variations are determined by changing environmental and access conditions, the abundance of animals and their movements, regulations regarding hunting and trapping seasons, and changing condition of the meat, hide or fur.

Figure 6.
Kaktovik Yearly Cycle.



Patterns indicate desired periods for pursuit of each species based upon the relationship of abundance, hunter access, seasonal needs, and desirability.

The year to year variations in subsistence harvests are also influenced by environmental conditions and animal abundance and movements. Hunters cannot depend, for example, on the ice going out at a certain time or on caribou being present in an area at a time when they can get to them. Time available for hunting, individual preference, and degree of hunting success also influence yearly takes.

Although subsistence activities go on throughout the year, subsistence travel can be broken down into two seasons, summer and winter. During the ice-free months, usually early July through September, people travel by outboard-powered boat, and activities are confined to the coast. But after freezeup and during the snow season, from October through May, people can travel overland by snowmachine.

Overall participation in subsistence activities is greatest during spring and summer months, as this is the time of long days, mild weather, and species abundance. It is also the time when school is out and entire families can camp and hunt and fish together. The entire coast from Foggy Island to Demarcation Bay is used for summer subsistence activities. Motorboat access to inland areas by means of the rivers is normally not possible because of shallow water, but people can take their boats a few miles up the main channel of the Canning River.

The snow season greatly expands the range of land used for subsistence. Snow cover permits travel across the tundra of the coastal plain, and access to the camps along the Hulahula and Sadlerochit River drainages of the Brooks Range. During the snow season "the mountains" are the single most important place for subsistence activities. April and May are considered the best months for travelling overland by snowmachine because there is still snow on the ground and also many hours of daylight.

The first snow flurries begin in August, but the snow usually does not accumulate until mid-October. The colder weather of late August signifies the time to begin whaling. Whaling occurs only in the fall at Kaktovik, not during the spring as in other North Slope villages. At the beginning of the fall migration, hunters may travel as far as 20 miles out to sea to hunt whales; later, in September, the whales pass closer to shore and may be taken within two miles of Barter Island.

Hunting can last for several weeks before whales are taken. Then it may take another week of work, often in cold and stormy weather conditions, to cut up, transport, divide and deliver the whale meat, maktak and baleen to each household.



Photo 11. Boating along the coast near Barter Island in late July, 1977 (M. Jacobson).

After a rest from all the whaling activity, people start readying their snow machines and thinking about heading for the mountains. They usually wait for freeze-up and sufficient snow cover before leaving. After crossing the narrow channel between Barter Island and the mainland (Tunuiguun), they travel southwest to a place called *Sivugaq*, where the main trail starts onto the Hulahula River and then follows it southward into the Brooks Range foothills.

People go into the mountains for periods ranging from a few days to a month at a time. The average stay is one to two weeks. Sometimes parents alternate on their trips, so that one parent is home to take care of the children who must remain in the village to attend school. If both parents go, older children are left, although neighboring relatives are nearby to help them out. Trips to the mountains peak in early November and extend into mid-December when lack of daylight becomes a problem and hunting decreases.

The principal "snow season" camps of Kaktovik people are located along the Hulahula River and Sadlerochit Rivers. On the Hulahula, people usually erect wall tents near *First, Second, or Third Fish Hole* for convenient ice fishing. On the Sadlerochit, camping areas are less defined, being anywhere from north of Sadlerochit Springs to the Kekiktuk River and beyond. Extended family groups and others usually camp together. Their tents are heated with wood-burning stoves fueled by willows gathered nearby.

People hunt primarily caribou and sheep during the fall. The best time of year for sheep hunting is late October through November, when the mountains are accessible by snowmachine and the sheep are fat. Lack of daylight causes both sheep and caribou hunting to come to a virtual halt in mid-December.

Photo 12. A sled load of firewood is brought to the Hulahula River's Second Fish Hole camp (M. Jacobson).



Trapping is one subsistence activity that continues through the darkest months. Red and cross fox fur "starts getting good" about the first of November, and these animals are trapped from the camps in the mountains. Wolves and wolverines are hunted and trapped from the mountain camps beginning about the first of December. These animals are also trapped on the coastal plain, often around Barter Island.

Polar bears are also hunted during the darkest months. Bears are not usually taken until after freeze-up, a time when many of them occur along the coast. People generally hunt them only in the vicinity of Barter Island.

At Thanksgiving and during the Christmas holidays, everyone returns from the mountains to the village to celebrate. Thanksgiving and Christmas feasts are held, at which whale meat and maktak are distributed, along with caribou, sheep meat, and fish. There are also Eskimo dances, games, and snowmachine races.



Photo 13. Dancing inside the community hall during Thanksgiving (C. Wentworth).

In January and February, people start returning to the mountain camps. Trips to the mountains increase in March and April, as there is more daylight and it is slightly warmer. Winter fishing at the Hulahula River fish holes is best from late February through early April. Some caribou are also taken during this period, and an occasional moose may be shot. Sheep hunting may take place, but to a much lesser extent than in the fall. According to one Kaktovik hunter, sheep are good for eating until the middle of May. Wolf and wolverine fur is also good until May, but wolverine fur starts turning red, making it less desirable.

April and May are the most important months for taking arctic ground squirrel and ptarmigan, and even a few marmots. This is due to the availability of the animals, combined with accessibility and long hours of daylight. Hunting and trapping for squirrels

peaks in May, when their fur is still good and when snowmachine travel is still easy. Although ptarmigan may be hunted all year, hunting is best during April and May when they congregate in large flocks. The last trips to the mountains for the spring season are often made to get squirrel and ptarmigan.

Migratory waterfowl hunting begins along the coast in late May or early June. The birds appear as soon as there is some open water. Sometimes the last trips to the mountains are combined with the first trips for waterfowl hunting. People commonly set up tents in the Camden Bay area along the coast, then head inland to the mountains for squirrel, hunting ptarmigan along the way. Then they return to the coastal camp and hunt eiders and brant, if the birds have arrived by that time.

In early June, waterfowl hunting usually takes place closer to Barter Island, since it is now harder to travel by snowmachine. People may set up camps on the mainland southeast of Barter Island, on Arey Island, or at other locations, depending on where the flocks are flying by. Stays at these camps range from overnight to two weeks. Seals can be taken also, and some people may get an occasional caribou.

Later in June, subsistence activities slacken because there is no longer enough snow to travel any distance by snow machine, yet the coastal waters are frozen so boat travel is impossible. When the people still had dog teams, they could travel out over the ice to hunt seals, as June is a very good time for hunting them. They could also put packs on the dogs and travel inland to hunt caribou or small game. Small game hunting is not as good in June as earlier because squirrels and marmots are shedding; and ptarmigan have divided into isolated pairs for mating, making them harder to hunt.

As soon as the ice goes out in July, subsistence activities pick up considerably as many people begin travelling along the coast by boat. The legal season for caribou begins July 1, and if any are seen along the coast, people excitedly begin to hunt them. July is also the best month of the year for catching arctic char (iqalukpik). When people can maneuver their boats through Kaktovik Lagoon they begin setting their nets. Char fishing continues to be good into August, and about August 1 the arctic cisco (qaaktaq) appear in the nets. August and September are the best months for arctic cisco fishing (Wentworth 1979a).

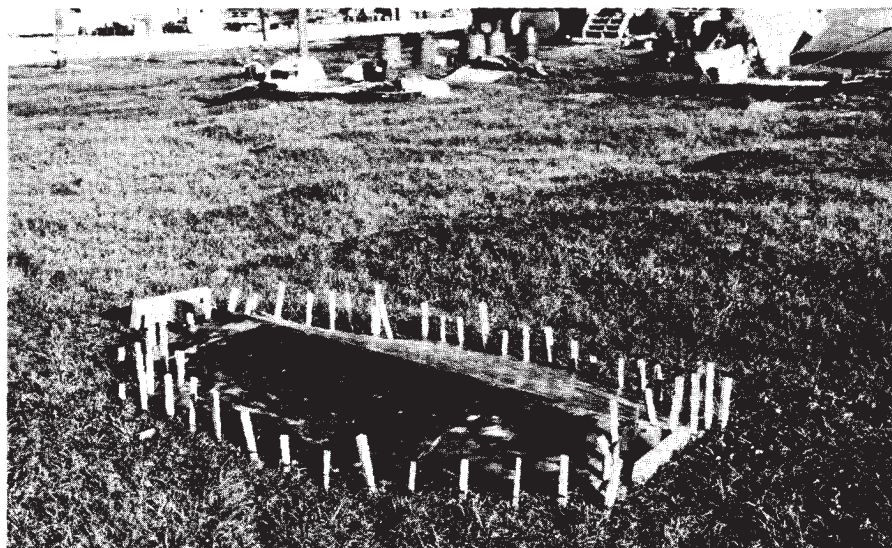


Photo 14. Ugruk (bearded seal) skin stretched out to dry at Kaktovik (M. Jacobson).

CHAPTER 7

Resources Harvested

Table 6 lists the wildlife and fish and other biotic resources taken by Kaktovik residents, and gives English, Iñupiaq, and scientific names for these resources.

Big Game

Caribou is the staple and most preferred land mammal in Kaktovik's subsistence diet. It can be a source of fresh meat throughout the year: meat which provides high levels of protein, vitamins and minerals, especially when fresh. It is also eaten frozen and dried, and is a very important part of the holiday feasts.

Caribou (Tuttu)

Caribou hides may be used for garments, boot soles, and for blankets. Several people presently wear caribou mittens during cold weather, and caribou mukluks made from the skin of caribou legs are commonly worn. Hides are often used to sit or sleep on when people are camped away from the village (Jacobson 1979).

Seasonal land use for caribou is dependent on the movements of the animals. The calving area of the Porcupine caribou herd is inland from Barter Island, covering the coastal plain from the Canning River into the Yukon Territory. After calving in late May and early June the herd comes together in huge post-calving aggregations and wanders widely over the North Slope, from the Canning River to as far as the Mackenzie River delta in Canada. In the fall the Porcupine herd migrates to its winter habitat on the south side of the Brooks Range in Canada and Alaska. Some stragglers and scattered groups of caribou may remain on the north side of the Brooks Range throughout the winter.

The summer, fall, and spring hunting periods are also the times when the bull caribou are fattest, and the meat is best. Caribou hides are most desirable for garments and boot soles in July and August, and best for blankets and boot legs from late October through November, when the fur is thickest.

Numbers of caribou taken at Kaktovik are a function of the movements of the herd, environmental conditions, time available for hunting, and success of other hunting pursuits. No exact figures on yearly harvests are available, but village leaders have estimated that an average yearly take is 100 animals (Aishanna, H. 1973 as cited in U.S. Dept. of Interior 1974; A.K. Brower, pers. comm. 1979). Estimated yearly takes for recent years are: 1977 - 100; 1978 - 90; 1979 - 40; 1980 - 80.

Fewer caribou are taken now that dog teams have been replaced by snowmachines. When Kaktovik people used dog teams as their principal mode of transportation, they had to hunt more caribou to help keep them fed. Besides the meat, the dogs were fed the "blood and guts" of the caribou, which was also made into soup for them.

Caribou hunting opportunities for the residents of Kaktovik are usually greatest from early July to late August, but can fluctuate widely depending on the sea ice conditions and movements of the herd. The other main caribou hunting periods are from late October to late November when there is enough snow for overland travel by snowmachine and the days are not yet too short, and from late February through March and April when there are longer daylight hours and better weather conditions.

Table 6.
Biotic Resources Commonly Used by Kaktovik Residents.

English	Iñupiaq	Scientific
Big Game		
Caribou	Tuttu	Rangifer tarandus
Dall Sheep	Imnaiq	Ovis dalli
Moose	Tuttuvak	Alces alces
Brown Bear	Aktaq	Ursus arctos
Furbearers/Small Game		
Arctic fox	Tigiganniaq	Alopex lagopus
Red fox	Kayuqtuq	Vulpes vulpes
Wolf	Amaḡuq	Canis lupus
Wolverine	Qavvik	Gulo gulo
Mink	Itigiaqpak	Mustela vison
Weasel	Itigiaq	Mustela erminea
Arctic ground squirrel	Siksrik	Spermophilus parryii
Alaska marmot	Siksrikpak	Marmota broweri
Marine Mammals		
Polar bear	Nanuq	Ursus maritimus
Bearded seal	Ugruk	Erignathus barbatus
Ringed seal	Natchiq	Phoca hispida
Spotted seal	Qasigiaq	Phoca vitulina
Walrus	Aiviq	Odobenus rosmarus
Beluga whale	Qilalugaq	Delphinapterus leucas
Bowhead whale	Agviq	Baleana mysticetus
Birds		
Common eider	Amauligruaq	Somateria mollissima
King eider	Qigalik	Somateria spectabilis
Black brant	Nigliḡgaq	Branta bernicla
Snow goose	Kaḡuq	Chen caerulescens
Canada goose	Iqsraḡutilik	Branta canadensis
Pintail	Kurugaq	Anas acuta
Oldsquaw duck	Aaḡhaaliq	Clangula hyemalis
Ptarmigan	Aqargik	
Willow ptarmigan	Akrigivik	Lagopus lagopus
Rock ptarmigan	Niksaaqtunjiq	Lagopus mutus
Snowy owl	Ukpik	Nyctea scandiaca
Birds' eggs	Mannik	
Fish		
Arctic char	Iqaluk	Salvelinus alpinus
Whitefish	Iqalukpik	
Arctic cisco	Qaaktaq	Coregonus autumnalis
Least cisco	Iqalusaaq	Coregonus sardinella
Broad whitefish	Aanaaktiq	Coregonus nasus
Round whitefish	Savigunaq	Prosopium cylindraceum
Ling cod	Tittaaliq	Lota lota
Grayling	Sulukpaugaq	Thymallus arcticus
Chum salmon	Iqalugruaq	Oncorhynchus keta
Pink salmon	Amaqtuq	Oncorhynchus gorbuscha
Arctic flounder	Nataaḡnaq	Boreogadus saida
Fourhorned sculpin	Kanayuq	Myoxocephalus quadricornis
Lake trout	Iqaluakpak	Salvelinus manaycush
Pike	Paḡtuk	(not positively identified)
Arctic cod ("tomcod")	Uugaq	Boreogadus saida
Smelt	ḡhuagniq	Osmerus mordax
Blackfish ("old man fish")	Aḡayuqaksrauraq	Dallia pectoralis

Table 6 (continued).
Biotic Resources Commonly Used by Kaktovik Residents.

English	Iñupiaq	Scientific
Berries		
Blueberry	Asiaq	<i>Vaccinium uliginosum</i>
Cloudberry	Aqpik	<i>Rubus chamaemorus</i>
Cranberry	Kimmiññaq	<i>Vaccinium vitis-idaea</i>
Greens/Roots		
Wild potato	Masu	<i>Hedysarum alpinum</i>
Wild Rhubarb	Qurgulliq	<i>Oxyria digyna</i>
Forest/Vegetation		
Driftwood	Qiruk	
Brush, willow	Uqpik	

In July when there is open water, people travel extensively along the coast by boat to search for caribou. Hunters usually cannot go inland by boat because the rivers are too shallow, except for the lower eight or ten miles of the Canning River.

While travelling the coast, hunters commonly go ashore to scan the surrounding terrain for caribou. Caribou are often spotted right from camp. Hunters may maneuver their boats closer to the animals and then go after them on foot. Sometimes caribou are shot from the boat. Dead caribou are carried or dragged back to shore and then butchered at the camp. In mid-August of 1979, about 15 caribou were taken in the Konganevik Point and Canning River delta areas. Nearly all of these were skinned and quartered on the spot, then carried to the boats. Back at camp, the task of butchering was completed. Prior to rut bulls are preferred because they are the largest and fat-test.



Photo 15. Caribou taken near Pokok (Humphrey) Bay in July (M. Jacobson).

The coastal area directly south of Barter Island and eastward to the Jago River delta is one of Kaktovik's most intensely used summer hunting areas. People hunt here mostly in July after the ice has gone out of the lagoon. In May and June small numbers of caribou are taken here in conjunction with spring waterfowl hunting, though access may be limited due to break-up conditions and lack of snow. The mainland southwest of Barter Island along Arey Lagoon is also quite important.



Photo 16. Masak Gordon butchers caribou meat at Kaktovik (M. Jacobson).

Farther east of Barter Island the coastal area from Tapkaurak Point to Pokok (Humphrey) Bay is heavily used for summer caribou hunting. Within this area, *Uqsruqtalik* (Griffin Point) is probably the most popular campsite. People go to *Uqsruqtalik* in July, and may spend several weeks there fishing and hunting. During July 1977 several families camped at *Uqsruqtalik* and at least 14 caribou were taken.

Tapqauraq and *Pukak* are also popular places to camp. At least one family goes waterfowl hunting at *Pukak* each spring, leaves the tent standing, and returns again in July to hunt caribou. Present caribou hunting extends beyond *Pukak* to the Kogotpak River mouth and Nuvagapak Lagoon. People may also hunt caribou at Demarcation Bay if very few caribou have been seen closer to Barter Island, or if they are on their way to or from visiting relatives in Canada.

West of Barter Island, *Aanalaq* and *Sanniqaaluk* may be used as bases for caribou hunting in July and August. Although the entire coast is used, the area from Nataroarok Creek to the eastern shore of Camden Bay appears to be very important. *Nuvugaq* in Camden Bay is another well used caribou hunting location, where people often camp.

In some years the Porcupine caribou herd post-calving aggregations are not within reach of Kaktovik hunters. During the summers of 1978, 1979, 1980, and 1981, the Porcupine caribou herd passed to areas east of Barter Island and into the Yukon Territory

before Kaktovik people were able to do any travelling. This situation occurred in late June and early July at a time when ice still covered much of the Beaufort seacoast, thus boat travel was impossible or extremely limited. Later in July, when boating did become possible, it appeared that virtually every member of the Porcupine caribou herd had left the area. In 1979 no caribou were reported taken by Kaktovik hunters during the entire month of July.

In August, scattered groups of caribou often appear near the coast in the areas of *Karjĩñĩivik* and the Canning River delta. These caribou probably belong to the Central Arctic herd. This has been a particularly important hunting area over the past few years, when relatively few caribou have been available.

Almost everyone in Kaktovik hunts at *Karjĩñĩivik*. Several people also hunt from *Karjĩñĩivik* to the delta of the Canning River's main channel, up the channel as far as it is navigable, and from this area up to *Aglĩguagruk* (*Brownlow Point*). While most of this hunting is in August, people hunt at *Karjĩñĩivik* throughout the year, particularly in the fall and winter.

The caribou subsistence information for the Canning river delta area supports the results of studies and surveys by Alaska Department of Fish and Game biologists, which show that caribou tend to congregate on the sandbars and delta of the Canning and nearby sandspits to avoid wet, soggy tundra and be in the breeze away from mosquitoes (Cameron, R. and K. Whitten 1979 pers. comm.). According to Kaktovik hunters, caribou often go to Flaxman Island during the spring and summer, to be in the wind and escape the bugs and the heat. They are sometimes hunted there, as well as along the coast from *Aglĩguagruk* to beyond the Staines River and around *Bullen Point* (MB 41). People have emphasized the importance of the whole delta area for caribou habitat.



Photo 17. This caribou hide is used as a sleeping pad when camping (C. Wentworth).

Replacement of dog teams with snowmachines has altered land use for caribou during summer months. When people had dogs, they could put packs on them and travel inland when there was little or no snow cover. The dogs could also ford rivers and river deltas, which is impossible with snowmachines. Of course these trips were very time consuming, involving several days or weeks of walking. Dogpacks were made out of seal skin, and one dog could sometimes carry the meat from an entire caribou. Trips inland were usually made in August. It was common to walk 20 to 30 miles inland in search of caribou, and occasionally people walked all the way to the mountains.

A reduction in caribou hunting takes place in September and early October because this is the time of subsistence whaling; virtually the entire energies of the village are devoted to the pursuit of whales.

Later in October, after enough snow has accumulated, the inland caribou hunting areas become accessible. A few people may get an early start by taking their snowmachines over to the mainland in a boat, but most wait until the Kaktovik Lagoon is frozen before heading for the mountains. Most winter caribou hunting occurs in the mountains along river valleys. But people occasionally hunt caribou on the coastal plain, especially at favored locations like *Kanjññiivik* (Konganevik Point).

The Hulahula River's *Second Fish Hole* is one of the most intensely used areas for winter caribou hunting. Hunters radiate out from this winter camp in every direction, looking for the animals. Many people hunt the Hulahula drainage area between *Second* and *First Fish Hole*, and from *Second Fish Hole* upriver to Kolotuk Creek. The area between this stretch of the Hulahula and the Sadlerochit River drainage is also intensively hunted. People normally hunt as far south as Katak Creek, Karen Creek and the Kekiktuk River, along the north side of Lake Schrader, and west to the upper Sadlerochit River, the Fire Creek drainage, and north to the southern slopes of the Sadlerochit Mountains. They often camp along the Sadlerochit River, and hunt across the foothill country to the Hulahula River.



Photo 18. Examining edible parasites on a fresh caribou hide. Note polar bear mittens used to keep hands warm while travelling (C. Wentworth).

The Okpilak River drainage is another winter caribou hunting area, especially from about as far south as the Hulahula River's *First Fish Hole* inland to Okpilak Lake. People also hunt the Okpirourak Creek drainage. They may travel from Barter Island and follow the course of the Okpilak River or they may come over to the Okpilak from *Second Fish Hole*, travelling in a northeasterly direction. The foothill area from *Second Fish Hole* to Kingak Hill near the Hulahula, and across to the Okpilak and Okpirourak drainages is another important winter caribou hunting area.

Some winter caribou hunting is done on the Jago River drainage, as far inland as Marie Mountain. East of the Jago, two important winter caribou hunting areas are the uplands between the Jago and the John River, and Niguanak Ridge just to the south.

Another widely noted winter caribou hunting area is *Kajihñiivik*. One hunter took five caribou at *Kajihñiivik* in early November 1978, and saw about 20 others. He also hunted there in February 1979. People have emphasized that the area immediately west of the Staines River, from the coast to about 30 miles inland, is especially important winter caribou habitat.

In spring, caribou hunting continues in the Hulahula, Sadlerochit, Okpilak and Jago River winter use areas. More hunting goes on across the coastal plain and in the foothills and mountain valleys due to increased daylight and slightly warmer temperatures. The most territory is covered at this time of year. Occasional trips are made up the Okerokavik River and to the foothill country of the Aichilik River. Until the 1940's, when people were living at *Uqsruqtalik* and other coastal locations, they often found caribou in an area surrounding the Okerokavik River and its branches, due west of the Angun River headwaters.

Occasionally in late winter or early spring, people travel to the Canning River in the vicinity of Ignek Valley and Shublik Island, and hunt caribou as far upriver as the Marsh Fork. They may travel via the north side of the Sadlerochit Mountains, or up the Sadlerochit to Fire Creek and over to Ignek Valley. Formerly, they travelled to this area by dogteam up the Canning from their homes at Flaxman Island or other coastal locations. One person has told how her family went caribou hunting every spring along the entire length of the Staines River.

By May (occasionally earlier) rivers are flowing and most snow has disappeared at lower elevations, so access to any caribou is very limited. Access remains limited until early to mid-July, when open water again allows for boat travel.

In the 1920's and 1930's, when some people had reindeer herds, they combined caribou hunting with reindeer herding. They travelled with their herds and pack dogs to the mountains in the fall, sometimes hunting caribou along the way. One family went up the Okpilak and Okpirourak Rivers in the fall and winter, and then over to the Hulahula River. Reindeer calving took place in the spring a few miles north of Old Man and Old Woman Creeks. They would then took the herd over to the Sadlerochit Valley near the Springs, and down the Sadlerochit River in May and June to *Nuvugaq* in Camden Bay, to the Canning River delta. All this time they hunted caribou if they saw any. They often stayed at *Sanniqsaaluk* on the way back to Barter Island in the summer. This type of overland travel during summer months was commonplace with dog teams. Another herder brought his reindeer up the Sadlerochit River each spring from his family's home at *Aana/aaq* and they calved behind the Sadlerochit Mountains.

The traditional Iñupiat Dall sheep hunting season is from mid-October until mid-December. Although the regular sport hunting season for sheep is from August to early September, the animals are not accessible to Kaktovik hunters at this time; thus in 1979 a special Dall sheep hunting season was created to help meet local subsistence needs. Some sheep hunting has also occurred from January to March, but this was usually only when people were short of meat, as the sheep are thinner and not as good at this time of year.

Dall sheep (Imnaiq)

The upper Hulahula River is by far the most intensely used sheep hunting area. Hunting begins at the entrance to the mountains near the *Second Fish Hole* and continues all the way up to the headwaters, called *Kajich*. The hunting area includes most of the tributary creeks. The TLUI sites *Katak* (or *Third Fish Hole*) and *Kajich* are chiefly associated with sheep hunting. A nearby stream is known locally as "200 sheep creek." Anderson (1919) reported two families of Eskimo sheep hunters living on the Hulahula River in the early part of this century. One Eskimo had killed 30 or 35 sheep from June to August, 1908, and 37 from September 1908 to May 1909. His family lived almost entirely on sheep meat. Anderson stated: "This man's clothing from head to foot was made of sheepskins, his tent of sheepskins, and even his snowshoes strung with sheepskin thongs."

People hunt sheep in the Sadlerochit mountains beginning a few miles south of Sadlerochit Springs. An important camping area is near Sadlerochit Springs. The upper Sadlerochit River in the Franklin Mountains, the creeks along the eastern side of the Shublik Mountains and third Range, and the Whistler Creek area at Neruokpuk Lakes are other locations where sheep are occasionally hunted.

During the mapping done in 1978, most hunters interviewed stressed the upper Hulahula drainage as their most important sheep hunting area. However, during recent years there has been increased hunting in the upper Okpilak, Jago, and especially the Aichilik River drainages. Hunting on the Okpilak begins at about Okpilak Lake, and on the Jago drainage near Marie Mountain. At the Aichilik River, people begin hunting near the first fish hole.

Formerly, the Kongakut River was very important for sheep hunting. These sheep supplied winter meat not only for local Iñupiat but also for overwintering commercial whalers at Herschel Island. The Kongakut sheep population was very low into the 1930's apparently due to previous overharvesting which had been associated with commercial whaling, but by the late 1930's and early 1940's many sheep could again be found on the Kongakut.

Anderson (1919) felt that until whaling ships began to winter at Herschel Island in 1889, Dall sheep were not heavily hunted in the mountains of northeast Alaska. It was his impression that Eskimos from the Colville River country gradually moved eastward to occupy one mountain valley after another until the sheep became too scarce to support them. When local hunters reduced the number of sheep in a specific mountain valley, hunger soon caused the people to move out. Word was spread that the particular area was "starvation country," and an automatic closed season allowed the sheep a chance to recover.

The number of sheep taken by Kaktovik hunters has fluctuated greatly, with only a few killed in some years to as many as 50 in other years. From 1977 through 1979 the average take was about 36 animals. The take varies according to whether or not they have had a successful whaling season, the number of caribou available, and snow cover, weather, and travelling conditions in the mountains. Cold temperatures, lack of snow cover, overflow areas in rivers, and long hours of darkness can make for arduous hunting conditions.

The sheep harvest is a mixture of ewes and rams. Large rams are often hard to get to and difficult to retrieve, however they are the biggest and the fattest. Unlike caribou, rams are still very good tasting even when they are in the rut. All of the sheep meat is eaten, including parts of the intestines and the feet. Meat from the sheep head is considered a delicacy.

Sheep hunting in Kaktovik is more of a village than an individual activity. Most of the sheep are taken by four families, who then share the meat with the rest of the village. Others also hunt, however. In November 1977 one Kaktovik woman shot five sheep

herself. The meat is widely shared, and sheep meat and sheep soup are a very important part of the communal feasts at Thanksgiving and Christmas. Sheep horns are sometimes used to make jewelry, fishing lures and other items.

The village of Kaktovik usually takes one or two moose per year. Moose are not specifically sought after, they are taken on an opportunistic basis. In former years moose were not commonly seen in Kaktovik's land use area, but the moose population in the Arctic National Wildlife Refuge and adjacent areas of the North Slope has been increasing.

Moose (Tuttuvak)

Moose are most often taken in the Sadlerochit Valley, and in the foothills along Old Man Creek, Okpilak River, and Okpirourak River. They are more commonly seen along the Sadlerochit River, even at its mouth, than along the Hulahula River. One man finds them along the Kekiktuk River and on the Sadlerochit side of Kikiktat Mountain.

Moose often congregate in the Ignek, Ikiakpaurak and Ikiakpuk Valleys, and along the Canning River, between these valleys. Kaktovik people have seen several moose together there, at one time. People sometimes make hunting trips to this area in the spring. They also take moose occasionally on the other side of the Canning River along the Kavik River and in the foothills near its headwaters.

In the late 1940's, three present day Kaktovik hunters traveled far up the Firth River by dog team and shot two or three moose near the U.S.-Canada border.

In 1976, a moose appeared on the coast just southeast of Barter Island, and was shot. Another one was seen at Manning Point in this same area, in early July of 1979, but was left alone.

Because moose in any numbers are relatively recent arrivals to this part of the North Slope, there is not as strong a cultural tradition built around hunting them as other species. However it is in the nature of the subsistence hunter to adapt to whatever is available (Uhl 1977). One middle-aged hunter, who has actively hunted caribou, sheep, seal and other animals all his life, got his first moose in the fall of 1980 in the foothills near Okpirourak Creek. He said it was his first moose, and probably his last.

Most people prefer caribou to moose, and a few do not like moose. In 1979, moose soup was served at the Thanksgiving feast.

Kaktovik people occasionally take brown/grizzly bears when they see them. In recent years the village has taken about two bears per year. Brown bears killed by Kaktovik hunters are generally taken inland during April or early May while there is still sufficient snow and ice for travel by snow machine, and also during July when an occasional bear may be seen close to the coast. Brown bears are taken strictly on an opportunistic basis (Jacobson 1980).

Brown bear (Aktaq)

The people say that the Sadlerochit River drainage has many brown bears. Every spring they are seen in the Sadlerochit River valley. One bear was taken near the Neruokpuk Lakes in May of 1978, and another on top of one of the hills near the Kekiktuk River in late April 1979. The latter was a large old boar with a hide so dark it looked like a black bear. In April 1978, people tried photographing a brown bear in its den on the east side of the Sadlerochit Mountains, but the picture did not turn out. One man said he particularly likes to eat brown bear fat. Large chunks of the fat are cut into thin strips then fried like bacon. He thinks the fat from polar bear is not as good as brown bear although he has eaten a lot of the former. In the early part of the century, Anderson (1919) reported that Eskimos occasionally killed brown bears inland, and often used the skins for a tent door. He saw the skins of two brown bears killed on the Hulahula River in October, 1908 by an Eskimo hunter. The Eskimo stated that he had killed 44 brown bear in his time, apparently from the Colville River east to Canada. However, Anderson felt that neither Eskimos nor Indians made any special effort to hunt brown bears.

A present day Kaktovik resident remembers shooting a brown bear up the Kongakut River valley in the early 1940's, and also using the skin for a tent door.

Kaktovik people occasionally have trouble with nuisance bears. In 1975 or 1976, three had to be shot at the people's summer camp at *Qikiqtaq* (Manning Point). In April 1980, a brown bear emerged from a vacant tent at *Second Fish Hole* on the Hulahula River and chased a woman. Her husband shot it. In late July 1981, a brown bear tore up a new tent left at a Canning River delta camp.

Furbearers/Small Game

The dark winter months are very important for trapping and hunting furbearers. Some people go to the mountains to hunt or trap wolves, wolverines, and red and cross fox, while others concentrate on Arctic fox on the coastal plain. Furs are used locally in making parkas and ruffs, or are sold to the village corporation or directly to a fur buyer. Furs and especially fur ruffs are a necessity for protection from the chilling arctic wind, particularly when travelling.

Arctic fox (Tigiganniaq)

The arctic or white fox is trapped mainly along the coast and on the coastal plain. In recent years, most people have set their traps on Barter Island, and on the barrier islands, lagoon ice, and coastal area between the Sadlerochit River and *Uqsruqtalik* (Griffin Point). Skins are prime with dense white fur by November and December, and by late March or early April the hair usually begins to get loose. Traplines are usually within 10 or 15 miles of the coast, but Arctic fox are sometimes taken further inland, even within the mountains. In March of 1978, an arctic fox was taken at the Hulahula River's *First Fish Hole* and another in the Sadlerochit Valley. Arctic fox have been seen as far inland as *Kanjich*, the headwaters of the Hulahula River.

In earlier times, when many present day Kaktovik people lived a more nomadic lifestyle, they trapped arctic fox all along the coast. One man's trapline went from Beechey Point to Foggy Island. A woman trapped with her father from Bullen Point to the Canning River delta, and on Flaxman Island and all the way up the Staines River (North Slope Borough 1980: 145-147). Two Kaktovik men were trapping partners, with a trapline extending along the coastline from Barter Island to the Canadian border. Another Kaktovik man trapped the coast from Demarcation Bay to the Aichilik River, and in a large area between the Aichilik and Sikrelurak River, near the coast to several miles inland.

The arctic fox population can fluctuate widely from year to year. During the winter of 1976-77, well over 100 fox were trapped, while during 1977-78 only two were taken. Most people did not even see any tracks that winter. The next year the numbers were up again, and fox harvests have remained high — well over 100 each year, through 1981.

During the four trapping seasons 1978-1982, a forty-five year old Kaktovik woman has been the most successful arctic fox trapper. Each year she has taken between 35 and 50 foxes, all in the Barter Island vicinity. Her sons often accompany her, and she is teaching them to trap.

People are cautious around animals, especially fox, that they suspect may have rabies. One trapper told how an arctic fox once rushed directly at him. He hit the fox in the head with a shovel, killed it, then burned the fox because he feared rabies. In 1976 nearly every dog at Barter Island had to be destroyed because of contracting rabies from an arctic fox. An entire family also had to undergo rabies vaccinations.

Red fox (Kayuqtuq) and Cross fox (Qiangaq)

Red and cross fox (different color phases of the same species) are trapped mainly in the mountains, though occasionally they are caught on the coastal plain. Traps are set along the Hulahula drainage from Kingak Hill in the foothills, almost all the way to

Kanich in the headwaters. Old Man Creek drainage and the entire lowland area between the Hulahula and Sadlerochit Rivers, including the area around Neruokpuk Lakes, is good for fox trapping. One trapper got five red fox along the Jago River in the vicinity of Marie Mountain, in March 1978.

Formerly, red and cross fox were taken inland on the Kongakut River, often from a base camp at the Pungautilik tributary. They were also taken inland on the Canning; the white trader Henry Chamberlain had a house near where the Canning joins the Staines River where trappers could take their furs.

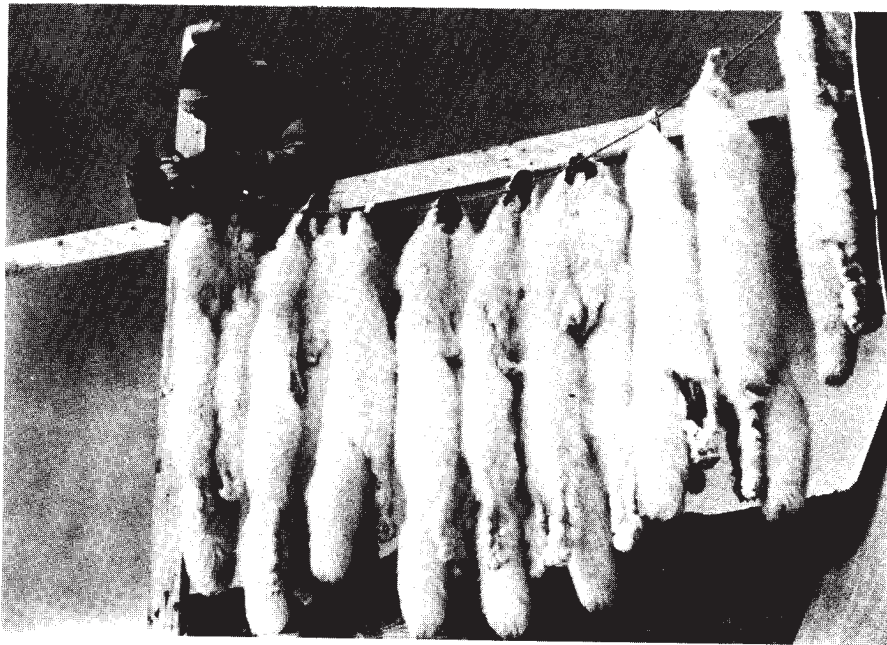


Photo 19. Arctic fox skins are hung for drying (M. Jacobson).

People generally take fewer red and cross fox than arctic fox. Each year, four or five trappers may each get three or four of these animals. Most of the red fox trappers are men, but one 50-year-old woman is regarded as the most skillful in the village at setting fox traps.

Most wolves and wolverines are trapped or shot in the foothills of the Brooks Range. The Hulahula, Sadlerochit and Okpilak River areas are most commonly hunted. The Canning River area is hunted less, but is regarded as a good area for wolves. A particularly favorable area for finding these animals in winter is between and including the Hulahula and Sadlerochit River drainages, from about Sadlerochit Springs on the north to Kikiktat Mountain and the Neruokpuk Lakes on the south. This terrain is characterized by gentle slopes and open country where one can see long distances, yet it is protected from the strong winds of the coastal plain by the Sadlerochit Mountains and foothills of the Hulahula and Okpilak Rivers. Wolves and wolverines are often first seen low in the drainages where willows occur, since this is where their prey is found; caribou are usually in low places feeding close to the rivers, and these same areas are good hunting for ptarmigan and squirrels. Wolves are also encountered in the upper Hulahula River area during fall when people enter the mountains to hunt sheep. Occasionally a wolf is trapped on the coast.

Wolf (*Amaġuq*) and
Wolverine (*Qavvik*)

One resource person feels the month of January is probably the best time to trap wolves. The short daylight hours make it difficult for the wolves to find food, making them hungrier then, and hungry wolves are easier to trap. This may also be true for wolverines. By the end of January 1979, six wolverine and two wolves had been taken.

Another hunter has kept track of all the places where he has shot or trapped wolves and wolverine over the past several years. He has sought them both on the coastal plain as far west as Mikkelson Bay, and in the foothills from the Canning to the Okerokovik River. However, most have been taken in the Hulahula, Sadlerochit and Okpilak River foothill area: seven out of ten wolverine and ten out of twelve wolves. The other two wolves were both taken very near the coast.

During the winter of 1980-81, a total of five wolves and seven wolverines were taken. Several wolverines were seen along the coast: Four or five were trapped on Barter Island, and another was seen at the freshwater lake near the village.

Two village men are the most active in pursuing wolves and wolverines; however, other men and women also hunt and trap them. Wolf and wolverine ruffs are a sign of a good hunter, or that one comes from a family of a good hunter. More durable than fox ruffs, they are the best protection from the arctic wind a person can have.

Other furbearers

Although rare, *mink* (*Itigiaqpak*) have been seen on the north side of the Brooks Range, especially during recent years. In the fall of 1977, a mink was trapped at *Second Fish Hole* on the Hulahula River. A few others were taken at the same location during the winter of 1978-79. In November 1980 two or more mink were seen at the Aichilik River in the area of *Second Fish Hole*. Anderson (1919) reported seeing mink tracks in 1908 on the Hulahula River, "near the entrance to the north side of the Endicott Mountains," which would have been near *Second Fish Hole*.

One long-time Kaktovik resident captured a mink at Demarcation Point in the 1940's. It was the first mink he had ever seen and, at first, he did not know what it was. But he received \$10.00 for it from the trading post.

Other species taken include a small number of *least weasel* (*Itigiaq*) that are trapped in mountain valleys incidental to other species. Most have come from the Hulahula and Sadlerochit River areas. A few *river otters* (*Pamiuqtuuq*), were seen in the upper Hulahula River during fall of 1977. Tracks of otters have been observed along the Canning River. *Porcupine* (*Qinagluk*) are sometimes seen in the upper portion of the Hulahula River, though none are known to have been taken in recent years. *Lynx* (*Niutuiyiq*) have been observed from time to time on the north side of the Brooks Range. The impression is that lynx used to be more common than they are now. In 1964, a lynx was seen on the Hulahula River between *First* and *Second Fish Holes*. A few other lynx were also seen on the coastline in the summer of the same year. During the winter of 1971 or 1972 a lynx was again observed between *First* and *Second Fish Holes* (northwest of Kingak Hill) on the Hulahula River.

Arctic ground squirrel (Siksrik)

Arctic ground squirrels emerge from their winter dens in March and April. Hunting may take place anywhere, but is usually along the banks and sandy mounds of the major rivers, especially the Jago, Okpilak, Hulahula and Sadlerochit. Hunting is often best in the river deltas and in the lower reaches of the rivers, within five to fifteen miles of the coast. Two of the most intensely used areas are the Jago River delta and the Hulahula-Okpilak River delta, from the coast to several miles upstream. People also hunt the entire drainages of the Jago and the Okpilak, up to their sources. Traps, .22 caliber rifles and sometimes snares are used for taking squirrels. The flesh is eaten, the skins are used for garment trim and to make very beautiful parkas. It takes 70 or more squirrel skins to make a parka. Sometimes the skins are of poor quality because of vicious fights among the squirrels.



Photo 20. Setting a trap for arctic ground squirrel (M. Jacobson).

The Sadlerochit River for several miles around Sadlerochit Springs is another area where many people hunt ground squirrels. Nearly the entire Sadlerochit River drainage is hunted, up to and including the Kekiktuk River tributary over to Neruokpuk Lakes, but the Springs area up to ten miles north of the Springs seems to be most heavily hunted.

People also hunt ground squirrels along the Hulahula from the coast up to *Second Fish Hole* where the mountains begin, and along the Old Man and Old Woman Creek tributaries near *Second Fish Hole*. Hunting is especially intense in the vicinities of *First* and *Second Fish Hole*.

The banks and lowland areas around the Neruokpuk Lakes are good places for ground squirrel hunting, as are the lowlands between Neruokpuk Lakes and the upper Sadlerochit River south of Okiotak Peak. East of the Jago River, people may hunt squirrels in fairly large areas covering most of the Niguanak and Sikrelurak River drainages, including the Niguanak Hills. They may occasionally hunt them along the Aichilik and Egaksrak River. Formerly they hunted them on the Kongakut River, especially in the area where the river makes the big bend as it emerges from the mountains.

West of the Sadlerochit River, some squirrel hunting is done near the mouths of Marsh and Carter (Iqalugliurak) Creek, from Camden Bay to four or five miles inland. On the Canning, squirrels may be hunted in conjunction with spring fishing trips, up near the



Photo 21. Holding an arctic ground squirrel trapped 30 miles inland on the Hulahula River (M. Jacobson).

warm springs close to Ignek and Nanook Creeks and several miles farther inland. In summer months, they may be hunted in the large mound areas of the Canning River delta, near the main channel. Most arctic ground squirrels go into hibernation by late September, but a few are sometimes seen until the middle of October.

Alaska marmot (Siksrikpak)

Two or three of Kaktovik's families like to go hunting for marmots each spring. They travel up Itkilyariak Creek, a Sadlerochit River tributary, and hunt marmot on the edge of the mountains between Itkilyariak Creek and the Sadlerochit Springs. In the spring of 1977 about 10 marmots were taken in this area. Marmots also occur in some of the rocky areas at Neruokpuk Lakes. They emerge from winter dens later (May) than ground squirrels.

Marine Mammals

Bowhead whale (Agviq)

Bowhead whales are the principal marine mammal hunted. Kaktovik's bowhead whaling season occurs during the westward migration of bowheads off the Beaufort seacoast, from late August until early October. There is no spring whaling season in Kaktovik because the open leads are too far from shore. Whale hunting is generally done within 10 miles of land but sometimes as much as 20 miles offshore.

Table 7 documents the number of whales taken by Kaktovik residents between 1964 and 1981.

Table 7.
Whales taken by the village of Kaktovik between 1964 and 1981.

No. of Crews	No. Taken	Date	Approx. Length	Sex	Approximate Location
—	2	1964	—	—	1.6 km NW Bernard Spit and 1 found dead off Humphrey Pt. (<i>Imaignaurak</i>)
—	3	1973	9.1-12.2 m	—	One 1.6 km N Bernard Spit. Two between Jago Spit and Griffin Point (<i>Ugsruqtalik</i>).
2	2	10-24 Sept. 1974 ¹	—	—	—
2		1975 ²	—	—	—
7	2	20 Sept. 1976 ³	13.7 m	M	3.2 km NE Jago Spit.
		27 Sept.	9.1 m	—	Barter Island's Arey Spit, N of <i>Iglukpaluk</i> .
5	2	28 Sept. 1977 ⁴	16.8 m	M	3-7 km N Barter Island.
		1 Oct. 1977 ⁴	9.1 m	F	3-7 km N Barter Island.
5	2	21 Sept. 1978 ⁵	11.1 m	M	Barter Island; washed up at Camden Bay.
		26 Sept. 1978 ⁵	13.3 m	M	16-24 km N Griffin Pt.
7	5	20 Sept. 1979 ⁶	12.7 m	M	5-8 km NE Griffin Pt.
		6 Oct. 1979 ⁶	10.7 m	F	Shallow water 1 km N-NE Barter Island.
		8 Oct. 1979 ⁶	10.3 m	M	—
		10 Oct. 1979 ⁶	10.8 m	M	—
		11 Oct. 1979 ⁶	10.8 m	M	Shallow water Arey Island Pt.
5	1	14 Sept. 1980 ⁷	9.2-10.7 m	M	<i>Pukak</i>
5	3	8 Sept. 1981	17.1 m	F	8-9 km NW Jago Spit.
		11 Sept. 1981	14.3 m	M	N Tapkaurak Spit.
		22 Sept. 1981	16.2 m	F	11 km NE Jago Spit.

¹ Fiscus and Marquette 1975

² Marquette 1976

³ Marquette 1978

⁴ Marquette 1979

⁵ Braham et al. 1980

⁶ Johnson et al. 1981

⁷ Marquette et al. 1981

Over the past few years up to seven crews with about five people each have participated in the hunt. The crews use small outboard-powered boats, usually 14-22 feet in length. They communicate with each other by citizens band radio: when one crew has struck a whale, the other crews help kill and land it. In the whaling seasons of 1979 and 1980, hunters from the village of Nuiqsut joined the Kaktovik whalers because of unfavorable conditions in their own area.

Crews normally go as far west as *Aanalaag* at Camden Bay and as far east as *Uqsruq-talik* (Griffin Point) to look for whales. They may occasionally go as far east as *Imaignaurak* (Humphrey Point), but they try to stay closer to shore when they go this far. A consideration when whaling is not to get too far from Barter Island, because when a whale is taken, it must be towed back home. Hauling a 30 to 50 ton whale, even when six or eight outboard powered boats are helping, may take several hours under the best of conditions. If the weather is stormy or visibility is poor (which is often), it can take one or more days. The farther the whale has to be hauled, the greater the chance that the meat will spoil. This is true even if the air temperature is cold because the thick layer of blubber does not allow the carcass to cool. Therefore speed in bringing the whale home and butchering it is a prime consideration.



Photo 22. (above) Villagers help butcher a bowhead whale at Barter Island, October 1977 (M. Jacobson).

Photo 23. (opposite, top) George Akootchook removes maktak from a large bowhead whale (M. Jacobson).

Photo 24. (opposite, bottom) Happiness at Kaktovik Nalukatuq feast (M. Jacobson).

Many days are not good for whaling, as the seas must be relatively calm and the visibility favorable. Often, the fog rolls in or sudden storms come up, forcing the whaling crews back to shore.

The earliest date that Kaktovik hunters have seen a whale is August 21. Whale sightings can vary considerably from day to day. Some days whalers may see few or no whales. Other days they may see 15 or 20. The last stage of migration is when the big females and their calves come through.

When crews are out whaling, people in the village may keep a vigil, climbing on rooftops and watching for returning boats with binoculars. If a whale is taken a boat bearing a raised flag will return with the exciting news, or the village is informed by C.B. radio. Then they will help the crews land it and pull it up on shore, using large pulleys and heavy equipment. Women erect a wall tent on the beach, and begin fixing hot coffee and tea for the crews and workers. Older men and others gather up the



butchering tools and begin sharpening the knives. The women cook fresh maktak and the intestines if they haven't spoiled and children pass them out. Everyone in the village is involved in one way or another.

After a whale is butchered, the meat and maktak is divided among the captain, crews, and the rest of the village. The captain saves "the captain's share," that portion from the "belly button" to the tail, and then distributes it at Thanksgiving and Christmas, and Nalukatuq feasts the next summer. The shares for the crews and for each village house are divided into equal portions. There is also a portion for the Presbyterian church in Fairbanks, and some families send part of their shares to relatives in Anaktuvak Pass, Barrow, Inuvik, or other villages. In 1981, over half of the meat and maktak went to places outside Kaktovik; a small plane took a full load to Nuiqsut.

Whaling is perhaps Kaktovik's most important community activity. It stresses the cultural values of large group cooperation and sharing of resources, and is a way of passing these values to the younger generation. Almost every able-bodied man is on a whaling crew; a few women also go out whaling. Older men serve as teachers, telling others how to cut up and divide the whale. School is closed for the event, the store closes, and all other community activities cease as people busy themselves with the whale (Jacobson 1978).

According to older residents Kaktovik was a prehistoric whaling site with whale bones used for a walkway to the beach (Kaveolook 1977; Okakok 1981). In historic times, however, there was no whaling at Kaktovik prior to 1964. This had to do with unsuitable ice conditions and with a lack of equipment. Although mere speculation, it may also have been that people were too busy hunting other species during fall time in preparation for the long winter, and could not afford to go whale hunting and risk not catching a whale.

Photo 25. Butchering a large bowhead whale at Barter Island (M. Jacobson).



Around 1927, one Kaktovik man helped catch a whale at *Napaqsralik* (Cross Island — MB 11) northeast of Prudhoe Bay. He was on the crew of Taaqpak, a well-known whaler:

Taaqpak had a new boat, which he had gotten from Captain C.T. Pedersen, who used to run a fur trading schooner up and down the Beaufort seacoast. There were five people on our crew. I used the rifle and another fellow the harpoon. This whale also had a young whale with it, but it sank when we shot it. Our boat had a sail, which we took down after we'd killed the whale. It took us three days to haul the whale to Taaqpak's camp (*Takpaam Inaat* - MB 25). We had to throw away the meat because it had spoiled during this time, but we kept the maktak. I do not know how much the whale weighed, but I remember that the bone was eleven feet long (Agiak pers. comm. 1978).

As men from other parts of the North Slope have married Kaktovik women, they have brought their whaling skills and equipment with them and helped reestablish whaling in Kaktovik. Kaktovik people have always eaten maktak, which they obtained from other villages before they began whaling at Kaktovik.

Kaktovik people sometimes catch beluga whales, which are usually taken incidental to the hunt for bowhead whales in the fall. One family saw a large school of belugas swimming near *Pukak*, the last week of August 1978; they killed two of them. Several other beluga whales were seen close to the north side of Barter Island in late August or early September 1980, and at least six and as many as 20 were caught. A few belugas were also taken at *Uqsruqtalik* in 1980 where people set fishing nets. No beluga whales were taken by Kaktovik residents in 1981.

Beluga whale (Qilalugaq)

Gray whales have been observed occasionally. During the fall of 1979, a gray whale was seen close to Barter Island. As far as is known, no gray whales have been taken by Kaktovik whalers.

Gray whale (Agvigluaq)

Kaktovik people hunt three species of seal: *Bearded seal (Ugruk)*, *ringed seal (Natchiq)*, and *spotted seal (Qasigiaq)* for the oil, meat, and skins. Seal oil is a necessary element in the Iñupiat diet and is also used for storing and preserving food (Wentworth 1979a). Sealskins are used for boots, slippers, mitts, parka trim, and sometimes as dufflebags or purses for belongings. The skin of the bearded seal is especially favored for use as boot soles.

Seals

Seals are hunted throughout the year although relatively few are taken. Most seal hunting occurs by boat from July to September all along the coast, both inside and outside the barrier islands. With plenty of open water and long days, seal hunters can cover large areas. At other seasons, hunters can sometimes travel out considerable distances on the sea ice by snowmachine searching for seals along open leads.



Photo 26. Seal hunter on an ice floe several miles north of Barter Island, in August (M. Jacobson).

The most intensely used summer seal hunting area extends from Pokok (Humphrey) Bay on the east to *Nuvugaq* and Simpson Cove on the west. The Canning River delta and all around Flaxman Island to the southeast of Brownlow Point is also important. The sea ice hunting may extend as far east as Pokok Lagoon and as far west as Brownlow Point.

Two traditional spring seal hunting camps are at *Naalagiagvik* on Arey Island, and on Tapkaurak Spit, but many of the other traditional sites along the coast may also be used for seal hunting. In August 1977, people dried a large quantity of bearded seal meat at *Uqsruqtalik*.

Ringed seals and bearded seals are taken much more commonly than spotted seals. Ringed seals are by far the most numerous seal and occur year around, but bearded seals are highly prized so are probably hunted more actively even though they are more dispersed. Spotted seals are the least common and present only during summer months. One local resource person emphasized two coastal areas as important spotted seal habitat: *Aanalaq* (Anderson Point) to the Hulahula-Okpilak delta, and Demarcation Bay to the Canadian border.

People express different seasonal preferences for seal hunting depending on whether or not they are interested in the hide. Some consider spring the most important time for sealing, when days are long and the animals are often seen lying on the ice. However, ringed seals are shedding at this time (May) and their hides are not prime until August or September. One Kaktovik hunter said that June is an excellent time for seal hunting but he no longer takes seals then because he no longer owns a dog team, and the ice is too rough and wet for a snowmachine at that time.

A typical August seal hunt will usually take hunters offshore five or ten miles, but sometimes up to twenty miles depending on the boating conditions and distribution of the ice. They travel among the floes of drifting ice, searching mainly for bearded seals. Hunters are constantly looking, studying the ice and scanning the water. Bearded seals seem to prefer big ice floes, often several acres in size, particularly the floes with gradual sloping sides rather than a steep edge that is more difficult to climb upon.

While seal oil and meat remain an essential part of the Kaktovik diet, few seals are taken compared to former times because there are no more dog teams. Most people gave up their dog teams by the late 1960's, with the last team in Kaktovik disappearing in 1971 or 1972. In the words of one hunter, the need for gas to feed snowmachines has replaced the need for seals to feed dogs. To this he attributes the present abundance of seals in the Barter Island area.



Photo 27. Women at Uqsruqtalik (Griffin Point) cutting ugruk meat into strips for storing in seal oil (M. Jacobson).

Photo 28. Ugruk meat hangs from drying rack (C. Wentworth).



However, people do not see this lessened dependence on seals as a permanent change. The rapidly rising price of fuel makes some hunters talk of going back to dog teams, which would mean taking more seals again. The importance of seals as a potential, as well as actual, food source keeps people concerned about their abundance and protection.

Walrus (Aiviq)

Walrus are not often seen as far east as Kaktovik. Over the past 20 years only five or six walrus have been taken by Kaktovik hunters. In the mid-1950's, three Kaktovik teenagers took the first walrus that had been seen in several years. At first they thought it was a strange looking bearded seal.

During July of 1978 a young walrus was taken one-half mile from Barter Island, and in August of 1981 a walrus was taken close to Bernard Spit. In 1975 or 1976 a few walrus were seen during the fall whaling season, but were not harvested. A small number of walrus were again seen during the whaling season in 1981.

Polar bear (Nanuq)

When actively hunted, polar bears are often pursued out on the ice, seaward of the barrier islands. Kaktovik's main hunting area extends from the Hulahula-Okpilak River delta on the west, to Pokok Lagoon on the east. Hunters may go as far as ten or more miles out after polar bear. One man shot a bear about six miles northwest of Barter Island in 1965. He got another one in 1977, off Tapkaurak Spit near Oruktalik Entrance.

Polar bear may be killed opportunistically when people are out camping or looking for other game. In 1968 a man was camped at *Agliguagruk* (Brownlow Point), and while working on his snowmachine carburetor that had iced up he heard the sound of footsteps close by, which turned out to be those of a polar bear, so he shot it. In 1975, a woman shot a polar bear while her family was camped at *Uqsruqtalik* (Griffin

Photo 29. This polar bear was killed close to Barter Island in November, 1977 (M. Jacobson).



Point). Polar bears have occasionally been seen inland several miles, sometimes even in the mountains. One village elder shot a polar bear in the mountains in Canada about 1946; at first sight he thought it was a caribou. Another time, three men chased a polar bear by dog team several miles inland, up the Okpilak River but did not catch it.

In November 1977, polar bear tracks were seen along the Hulahula River, about 20 miles from the coast. In April 1980 two Kaktovik hunters saw a polar bear sow and cub on the northeast edge of the Sadlerochit Mountains near Itkilyariak Creek.

In recent years, polar bears have almost always been taken in the vicinity of the village, occasionally within a few feet of a person's house. Fall and the dark months of winter are times when polar bears may be frequent visitors to the village. They are often attracted to the Barter Island dump, or to a whale carcass on the beach. Bears which enter the village are considered dangerous, especially the "skinny ones."

Not all polar bears seen around the village are shot. In most years, mothers with cubs are left alone. Occasionally bears will appear during summer months; these are usually ignored or scared off.

Since passage of the Marine Mammal Protection Act in December 1972, it has been illegal to sell unprocessed polar bear hides to non-Natives. Before the Act, hides sold for \$25 or more per foot. There is probably less incentive now to hunt the bears actively; however, hides are very valuable if made into articles of Native clothing such as boots, mittens or coats. Polar bear mittens, especially, are important cold-weather gear for village people.

Although polar bear hunters are interested mainly in the hides, the meat is usually eaten if the bear has enough fat on it. According to village elders, "skinny bears will make you sick." Fresh polar bear meat is considered an important side benefit though some villagers prefer not to eat it, saying it is too rich. When a hunter kills a bear the news travels fast and the meat is shared with others in the village who would like some.

The number of polar bears taken varies considerably from year to year, and is related to ice conditions and the number of bears attracted to the village during fall and winter. In 1977, five were taken, all between October 20 and November 23. In 1978, one was taken, in November. In October and early December 1980, approximately 28 polar bears were taken when they were present in the Barter Island area. Virtually every family in the village shot at least one of these bears, some got several. 1980 was not the first year that people at Barter Island have taken large numbers of polar bear. About 1941, eleven polar bears were taken by one family alone.

Into the 1940's and 1950's, when present day Kaktovik people lived at other coastal locations, polar bears were hunted at other places off the Beaufort seacoast. One hunter went polar bear hunting by dog team each year out on the ice due north of Demarcation Bay, sometimes about 30 miles out. Late April was the best time for these hunting trips. He also often hunted polar bears between Angun Point and the Kongakut River delta, out 2 or 3 miles beyond the barrier islands.

Another Kaktovik man got his first polar bear near the family's sod house on the Beaufort coast just west of Herschel Island in Canada, in April of 1950. His father had gone inland to hunt wolves, and he, 13 years old at the time, was alone with his sisters. The bear was bothering the dogs, and he shot it when it came right at him.

A Kaktovik woman who grew up at Flaxman Island hunted polar bear with her family on the western part of the island, and off of *Agliaguagruk* in the fall. One of the Iñupiaq names for Flaxman Island is *Sigak* (commonly spelled *Sirak*), which means "animal den," or in this case, "place where polar bears go to get covered up with snow and have their cubs." This Kaktovik woman's Iñupiaq name is *Sirak*, because she was born on Flaxman Island just after her family moved there in 1921.

Leffingwell (1919) reported that Eskimos in the vicinity of Flaxman Island shot perhaps a dozen polar bears each year. Anderson (1919) reported that in the early 1900's an officer from the schooner Rosie H., accompanied by Eskimos, killed a female polar bear and two newborn cubs in a hole in the snow near the mouth of the Shaviovik River, west of Flaxman Island.

A Kaktovik man who grew up at Foggy Island and Pole Island hunted polar bears around Pole Island and the McClure Islands, in fall and early winter, and then again in April.

Birds

Ducks and geese

Waterfowl are hunted mostly in the spring, from May through early June, although less intensive hunting continues throughout the summer and into September. People set up camps at various places along the coast, so they will be there when the flocks migrate past. Because the birds' arrival coincides with the end of school it is easy for waterfowl hunting to be a family activity. Extended families camp together. Stays at the camps range from a few days to over a month, but are most commonly one to two weeks. Virtually the entire village goes spring waterfowl hunting. Those who do not or cannot hunt are given birds by those who do. Soup made from waterfowl is eagerly looked forward to at this time of year, and some waterfowl are stored for winter months and holiday feasts.

Black brant (Nigliñgaq) is the main species hunted in the spring. Brant are prized for their freshness and flavor. People also commonly hunt *pacific eider* (*Amauligruaq*), *king eider* (*Qiqalik*), *snow geese* (*Karuaq*), *Canada geese* (*Iqsrugutalik*), *pintail duck* (*Kurugaq*) and *oldsquaw* (*Aaqhaaliq*). Oldsquaw are the most numerous of the waterfowl. Although more of these are taken than any other species, they are not highly prized and are usually taken incidental to other forms of hunting or when fishing nets are checked.

Some Kaktovik people say the best time for brant hunting is during foggy weather because the birds fly low to the ground. Hunters cannot see a great distance then, but they hear the brant coming, and when the birds appear through the fog they are at close range. Snow geese are usually difficult to get close to for hunting, but at times some of them fly with brant along the coast.

One very popular place to hunt waterfowl in the spring is *Nuvugaq*, the spit on the east side of Simpson Cove in Camden Bay. Although *Nuvugaq* is often referred to as "POW D" because of its proximity to the old DEW Line site, people do not actually camp at the site. The campsite is just at the base of the spit, west of Marsh Creek and on the shores of Simpson Cove. People hunt in a wide area around the spit and coastline, however, depending on how far north the birds fly over. Sometimes families camp at *Aanalaq* on the eastern shores of Camden Bay, and hunt waterfowl in nearby coastal areas. On the opposite, western side of Camden Bay, *Kajiññiivik* (Konganevik Point) and the small bay directly to the south are known as good hunting sites for brant.

In 1977, some people camped at *Nuvugaq* from mid-May to mid-June, returning occasionally to Kaktovik for brief periods. At least four families camped at *Nuvugaq* beginning late May 1978, and two families at *Aanalaq*.

Uqsruqtalik (Griffin Point), located 25 miles east of Barter Island, is another popular waterfowl hunting camp where several families go each year. While camping here, they hunt Oruktaik Lagoon up to Tapkaurak Point and all around the narrow spit and coastline from Griffin Point to Pokok Lagoon. One family hunts waterfowl every year at *Pukak*, setting up a tent in late May. They usually return to Kaktovik in mid-June,

then get their tent when they go back to the area by boat in July. During the land use mapping, people emphasized this area for brant, snow geese, and eider ducks.

Close to Barter Island, waterfowl camping and hunting areas vary according to where the migrating flocks pass over. The most commonly used hunting site during recent years has been the south end of *Qikiqtaq* or Manning Point spit, about four miles from Kaktovik (Manning Point is also locally referred to as "Drum Island," because of the many discarded fuel drums in the vicinity). If birds pass farther out from the mainland, *Naalagiagvik* on Arey Island is a very popular camping spot. The lakes southwest of Barter Island are also hunted, and sometimes waterfowl hunting camps are set up along the banks of the Okpilak and Hulahula Rivers just south of the delta. In the mapping, this area was noted for brant and geese.

In 1978, at least three families camped at "Drum Island" off and on from late May through late June. In 1979, six families camped there in early June. By June 5, one family had taken about 35 brant. They also saw geese, eiders, and oldsquaws.

Stays at camps close to Barter Island tend to be of shorter duration, with more frequent travel to and from the village. For example, if one member of the family has a job, the rest of the family stays at the camp while he or she travels back and forth. Some people make day trips to the western or southern sides of Barter Island or to Bernard Spit when the ducks and geese are flying, and may go as far as the lakes south of the Jago River delta. Later in the summer, after the sea ice goes out, waterfowl may be hunted by boat in Arey, Kaktovik, and Jago Lagoons. In 1978, the black brant westward migration passed over Barter Island between August 15 and August 30, and some birds were shot from the nearby spits.

Although the sites and areas just detailed are those most commonly used for waterfowl hunting, people may hunt ducks and geese along the entire coastline from Flaxman Island to Demarcation Bay. Travel to the more distant areas is usually by boat in July after the ice goes out, and is often in combination with fishing or caribou hunting. In the mapping, two families emphasized *Agliguagruk* (Brownlow Point) and the spit directly southeast for waterfowl hunting. Flaxman Island is occasionally hunted and is remembered for brant and eider ducks by those who used to live there. In the fall, one family usually hunts geese in the lake system south of the Tamayariak River.

During summer boating trips, some people hunt waterfowl in Pokok (Humphrey) Bay and Angun Lagoon and on the seaward side of these spits. One person emphasized that good waterfowl hunting areas occur at Beaufort Lagoon from Angun Point to Nuvagapak Lagoon, and Siku Lagoon from Siku entrance to the eastern mouth of the Kongakut River. This person also hunts ducks and geese in Demarcation Bay and outside Demarcation spit to the Canadian border.

Some people collect small numbers of bird eggs each spring. They consider them a delicacy. Eider duck eggs and, less commonly, glaucous gull and oldsquaw eggs, seem to be most commonly collected, usually from Arey Island or Tapkaurak Spit. Jago Spit used to have many eider duck eggs, but people do not find them there anymore because the spit has eroded. One Kaktovik resource person feels the Aichilik River delta area is the best nesting place for black brant. This area is not commonly hunted. The barrier islands from Flaxman Island west, including the Maguire, Stockton, and especially the McClure Island groups, are remembered by older people as having many eider duck eggs.

Eiders have sometimes been seen along the coast by Kaktovik residents as late as December. Several years ago, while a Kaktovik man was in the mountains, he saw a flock of eiders fly by during December, heading south.

*Willow ptarmigan (Akrigivik) and
Rock ptarmigan (Niksaaqtunijq)*

Ptarmigan are hunted throughout Kaktovik's land use area. Although ptarmigan may be hunted all year, most are taken in the spring when many villagers travel inland to the mountains. At this time ptarmigan are abundant in foothills and mountain valleys along the rivers and streams where willows grow. Concentrations of several hundred — sometimes thousands — of ptarmigan are not uncommon. The majority of birds occurring in these areas are willow ptarmigan. The last trips to the mountains during the spring season are often made to get arctic ground squirrels and ptarmigan. During spring and summer, many ptarmigan may also be taken along the coast. Most of these birds are rock ptarmigan.

The usual method of hunting is with a .22 rifle. Another procedure is to place a row of cut willows in a likely-looking snow patch, not too far away from naturally growing willows, and attach several snares among the branches. Ptarmigan, attracted to the willows, are caught in the snares. In May 1978, during a three day period near Sadlerochit Springs, one Kaktovik woman caught several willow ptarmigan using this method.

Willow and rock ptarmigan have long been an important source of food to people living on the Beaufort seacoast. Ptarmigan are frequently well distributed and available much of the year. In former years, Kaktovik residents depended upon ptarmigan as an often reliable source of food when other game was scarce. Ptarmigan feathers were also used as a household necessity for wiping greasy or wet hands. A woman who grew up at Flaxman Island remembers eating ptarmigan for every meal for day after day during lean times. She hunted ptarmigan on the eastern side of Flaxman Island and at Brownlow Point in the winter and spring. She also hunted ptarmigan on the Canning River channel immediately east of the Staines River, from the mouth to about five miles upriver.



But sometimes even ptarmigan were not enough. The winter of 1935-36 was a very poor one for subsistence. One couple, living at *Siku* (Icy Reef), decided they would be able to survive better if they left the coast and went inland to the mountains. But there was almost no game in the mountains either. Having only ptarmigan to eat, the man starved to death, and his wife came close to the same fate.

One Kaktovik man, who grew up at Camden Bay, often travelled with his father to the upper Kavik River to catch fish. He has emphasized that they also captured many, many ptarmigan along the upper Kavik River.

Leffingwell (1919) mentions the Canadian expedition, stranded at Collinson Point in 1914, which "consumed about 20 birds daily for two or three months. Most of these ptarmigan were secured within 15 miles of their camp." Iqalugliurak (Carter) Creek and Marsh Creek, inland for 5 to 10 miles, are still good areas for hunting ptarmigan. Many ptarmigan are also taken just east of Barter Island at *Qikiqtaq* (Manning Point).

A favorite area for ptarmigan hunting is the Sadlerochit River from about five miles north of Sadlerochit Spring all the way upriver to Fire Creek. Tributaries of the Sadlerochit, such as Last Creek and Arctic Creek, are heavily hunted, as is the Kekiktuk River and its tributaries, including Karen Creek. The Canning River is hunted less commonly but is well known as an excellent area for ptarmigan, especially upriver from near Ignek Creek. Kaktovik families travel to these areas in the springtime, and these trips provide an opportunity for adults to teach their children to hunt. Frequently, ptarmigan is the first wildlife species a child learns to shoot.

Photo 30. (opposite) These willows were placed in the snow at Sadlerochit Springs so that snares for capturing ptarmigan could be hung in the spaces between them (M. Jacobson).

Photo 31. (right) Plucking feathers from ptarmigan. Hulahula River, April 1979 (C. Wentworth).



Fish

Several different fish species inhabit the Beaufort Sea and the area's rivers. Many are taken for subsistence. Other, smaller fish species are food for seals and whales, and are thus an important link in the subsistence food chain even though they are not taken directly by subsistence users.

Arctic char (Iqalukpik) Arctic char is the most extensively used fish species. In summer, sea-run char are caught all along the coast, around the barrier islands, and up the navigable portions of the river deltas. Char are the first fish to appear in the nets after the ice goes out in early July, and they are caught into late August.

Freshwater resident arctic char are taken inland on the rivers during the snow season, by fishing through holes in the ice. A smaller variety than the sea-run char, they are sometimes called iqalukpiayat because of their small size (5"-18" long).

Arctic cisco (Qaaktaq) Arctic cisco is the most common whitefish species. Cisco begin appearing in the nets about the first of August, usually after the arctic char run peaks. The arctic cisco run is at its prime anywhere from August through early September. They are almost always taken in the ocean, by netting or seining. The word qaaktaq is similar but should not be

Photo 32. Ken Sims of Kaktovik holds an arctic char (left) and a chum salmon caught close to Barter Island (M. Jacobson).



confused with the word qaaktuq, which means seining and is part of the word *Qaak-tugvik* (Kaktovik) or "seining place." An arctic cisco tagged by the Alaska Department of Fish and Game west of Prudhoe Bay (Kavearak Point) in August 1978 was caught one year later at *Uqsruqtalik* (Griffin Point) 170 miles away. Another tagged at Prudhoe Bay in July 1981 was caught at *Uqsruqtalik* in August of the same year.

Least cisco, a whitefish species similar to arctic cisco, is taken in the lagoons, river deltas, and particularly the small lakes and streams of the river drainages. People distinguish it from the arctic cisco by its blackish gray fins instead of white ones, and by its narrower, "skinnier" body. It is much less common than arctic cisco. A least cisco tagged off the end of the Prudhoe Bay dock on July 25, 1977 was caught at *Uqsruqtalik*, on August 14, 20 days later.

Broad whitefish is a relatively large species of whitefish found in the Canning River drainage. It is usually taken in the deeper lakes and channels of the Canning River delta, during July through September. Occasionally it is taken in the winter at fishing holes farther inland on the Canning.

Round Whitefish is similar to broad whitefish, only with an orange color. Much less common than the broad whitefish, it is found in the same areas of the Canning. Formerly, Kaktovik people caught both broad and round whitefish in the Sagavanirktok River.

Small numbers of ling cod may be taken inland on the Canning River during the snow season. Formerly, they were taken during fall and winter on the Kuparuk and some of the other larger rivers besides the Canning. It appears that they have been taken only on the inland portions of rivers, at least ten miles from the coast.

Grayling is a major subsistence species taken in many of the area's rivers and river deltas. Late summer, after freeze-up, and then again in spring are the most likely times to catch grayling.

Pink and Chum salmon are occasionally taken in nets in July and August, especially near Barter Island. Pink salmon were taken in large numbers all along the Beaufort seacoast in 1978. This was a very unusual event and some villagers had never seen pink salmon before.

These two species sometimes appear in the nets during summer ocean fishing. Kaktovik people catch Arctic flounder off *Qikiqtaq* (Manning Point or Drum Island), Arey Spit, and in Kaktovik lagoon between *Qikiqtaq* and the mainland. Sculpin are usually not eaten because they are too boney.

During the snow season, lake trout are caught in the Neruokpuk Lakes of the Brooks Range by fishing through the ice with hook and line. Often 25 to 35 inches long or more, they are the largest fish species taken by Kaktovik people.

Paigtuk, which Kaktovik people believe to be pike, are occasionally taken in the Hulahula River, mainly at *First Fish Hole*. They are also caught in other rivers. This species has not been positively identified. It is described as "sort of an ugly fish," having a large lower jaw, white meat and pink stripes.

Arctic Cod or Tomcod and Smelt are small fish that may be caught at various times of year along the Beaufort seacoast, with nets in summer and with hook and line in winter. In summer they are sometimes taken near the spits off Barter Island. In October and November, people fish through the ocean ice for them at *Iglukpaluk* and north of Barter Island.

Least cisco (Iqalusaaq)

Broad whitefish (Aanaaktiq)

Round whitefish (Savigunaq)

Ling cod or burbot (Tittaaliq)

Grayling (Sulukpaugaq)

*Pink salmon (Amaqtuq) and
chum salmon (Iqalugruaq)*

*Arctic flounder (Nataagnaq)
and fourhorn sculpin (Kanayuq)*

Lake trout (Iqaluakpak)

Pike (Paigtuk)

*Arctic cod or tomcod (Uugaq)
and smelt (Ilhuagniq)*



Photo 33. Lake trout are caught in the Neruokpuk Lakes by fishing through the ice with hook and line (M. Jacobson).

Blackfish (Arjuyuqaksrauraq)

Blackfish are also called "old man fish" by the local people. They are small fish (up to about one foot in length) that may be taken along the rivers through the ice, in winter and spring. Rivers where they have been caught include the Canning, Hulahula, Kongakut and especially the Aichilik.

Summer subsistence fishing occurs in the coastal waters, river deltas, and from the barrier island during the ice-free months of July, August and September. People usually set gill nets, although rods and reels are sometimes used near the village and at the fish camps. People presently fish as far west as Foggy Island and as far east as Demarcation Bay. They set up fish camps at places such as *Koganak Inaat* (Koganak's camp — MB 35), *Agliguagruk* (Brownlow Point), *Nuvugaq* (Collinson Point) and *Uqsruqtalik* (Griffin Point) where they may remain for several weeks.

During the summer, virtually the entire village participates in the subsistence fishery. Fishing activity is most concentrated off the coast and around the spits of Barter Island, all around Bernard Spit and Arey Island, and in Oruktalik Lagoon off Griffin Point. People may camp at *Iglukpaluk*, *Naalagiagvik* (Arey Island), or *Uqsruqtalik* (Griffin Point) while they fish, or they may simply go out by boat each day to check their nets. This area is very good for arctic char beginning in early July and for arctic cisco beginning in August. People often find 20 or more fish each time they check their nets, and it is not uncommon to catch 50 fish in a day. In 1978, one woman had 300 char by July 28.

A popular summer fishing camp is *Uqsruqtalik*, where people may dry large quantities of fish for winter use. They fish in Tapkaurak Lagoon, Oruktalik Lagoon, Pokok Lagoon, and on either side of the long and narrow barrier islands which form Angun Lagoon.

Formerly, many small arctic char were taken in the summer in the delta of the Kongakut River's western branch, near the traditional site *Siku*. People also fished in summer all along the spit known as *Pattaktuq* (Demarcation Point), and occasionally do so today when travelling in this region. The spit used to extend further into Demarcation Bay, but Air Force DEW Line operations in the early 1950's removed a great quantity of gravel from it, causing a channel to be formed. Fishing has not been nearly as good in the Bay since that time.

West of Barter Island, *Nuvugaq* spit in Camden Bay and the eastern part of Camden Bay near the traditional site *Aanalaq*, are other summer fishing places for arctic char and arctic cisco. The little river between *Nuvugaq* and *Aanalaq*, called "Carter Creek" on the USGS map, is known for its arctic cisco and arctic char. The Iñupiaq name for this river is *Iqalugliurak*, which means "little river with lots of fish." The best time for netting these fish is in June, after the river opens up (North Slope Borough 1980: 185)

The Canning River drainage is known for its variety of fish, being the only river in the Arctic National Wildlife Refuge where Kaktovik people find broad whitefish and ling cod. During summer and early fall the Canning River delta is one of the most important fishing areas. Almost everyone in the village has fished here at one time or another during the summer. In the land use mapping, the place most often noted was the main channel of the Canning from near the mouth to about ten to fifteen miles upriver. This stretch of river is especially noted for its grayling taken in early fall, and broad whitefish taken in summer. The latter are also caught in the largest lake south of the main channel (between the main channel and the Tamayariak river) and in the Tamayariak River and the system of small lakes to the south. Two different Kaktovik women have emphasized that the broad whitefish taken in the Tamayariak River and lakes area "are big ones, and fat!" People catch arctic cisco in this area also. The larger lakes to the east of the Tamayariak River (south of VABM "Walker" and north of VABM "Noon" on the USGS map) are too shallow for fishing.

Agliugaḡruk (Brownlow Point) at the northern tip of the Canning River delta is another important fishing area. Several families may camp here during the summer. Nets are set in the ocean north-northwest of the Point, and in the lagoon inside the spit, just to the east of the Point. Arctic cisco is the main species taken, followed by char. Arctic flounder and sculpin are caught occasionally in the nets here too. Summer fishing for char also occurs along the coast southeast of *Agliugaḡruk*, as far as the main mouth of the Canning River.

Summer fishing for char and arctic cisco takes place in several places off Flaxman Island. People have noted the inland sides of both eastern and western ends of the island, especially the area west of the Panningona cabin and Leffingwell historic site.

Moving further west, Kaktovik people sometimes fish for char and arctic cisco in the vicinities of Pt. Hopson, Pt. Gordon, and *Savaḡvik* (Bullen Point). The large triangular shaped bay between Pt. Gordon and *Savaḡvik*, and the river emptying into it, are known for good summer fishing.

Some families may travel to the Shaviovik River delta and as far as Foggy Island for summer fishing, camping at traditional sites such as *Koganak Inaat* and *Ekoolook Inaat*. These are usually the people who lived in this area in their youth. At the Shaviovik River delta they fish for char, arctic cisco, and least cisco. During summer 1981 many grayling and some char were caught at the Shaviovik River.

Formerly, Kaktovik people caught three whitefish species in the Sagavanirktok River delta: broad whitefish, round whitefish and arctic cisco. People were especially dependent on the fish in this area in 1941, when they lived at *Kaḡiqtuq* at Prudhoe Bay. The area was particularly good for arctic cisco, which was caught around *Sik-ḡaḡtitaq* (Pt. McIntyre) and Pt. Storkerson.

After freeze-up and all through the snow season, people travel inland up the Hulahula and other rivers, where they fish through holes in the ice. They camp near the deep pools and open water springs where the fish overwinter. In the springtime, especially, they fish through the ice of the Neruokpuk and Okpilak Lakes in the Brooks Range. Usually a simple hook and line is used, attached to a willow stick. The common fishing method is referred to as "hooking."

Presently, winter fishing may take place as far west as the Canning (Kuugruaq) River and as far east as the Kongakut River. Until the mid-1940's, present-day Kaktovik people also relied extensively on fish in the rivers west of the Canning, especially the Shaviovik and the Kuparuk River.

The Hulahula is by far the most important winter fishing river to Kaktovik residents. After freeze-up, people travel to *First Fish Hole* and to *Second Fish Hole* where they set up camp. Almost everybody in the village fishes at one or both of these locations during the year. When travel conditions permit, most people also go up to *Katak* or *Third Fish Hole*, beyond Kolotuk Creek. They catch mostly arctic char and some grayling at *First* and *Second Fish Holes*, and char at *Katak*. The area around *First Fish Hole* is especially good for char in the fall, from about five miles north of the camp to two miles south.

At *Second Fish Hole*, overflows often make for good fishing. For example, in late April 1979, some 20 people camped here for a week. They caught 14 char on April 23, 39 on April 24, 300 on April 25 when the river overflowed and 150 on April 26. A single grayling was taken on April 24. One person who used to go to *Second Fish Hole* in the old days often caught enough fish in a short time to fill two gunny sacks.

Photo 34. Herman Rexford fishes for lake trout through thick ice (M. Jacobson).



The Sadlerochit (Salligutchich) and Okpilak Rivers are much less important for snow-season fishing than the Hulahula, but they both contain grayling. One fishing place for grayling is the area downriver from Sadlerochit Springs, where the water stays open much of the year. Short nets have been set, and one woman catches fish from her small rubber boat. Grayling are also caught in Okpilak Lake and the other lakes to the north.

Neruokpuk Lakes is where people go if they want to catch lake trout. Often 25 to 35 inches long or longer, these are the biggest fish available. The best chance to catch them is during the dark winter months. Holes several feet deep may be chiseled or drilled through the ice. In late November 1978, people caught about 20 big lake trout, and several smaller ones.

The Canning River drainage provides winter as well as summer fishing, inland from the delta. Important areas seem to be along the braided sections and at the warm springs near Ignek and Nanook Creeks. There are "lots of fish holes" in the braided area south of the Staines confluence with the Canning. Also, the braided area for about ten miles downriver from Shublik Island is noted for char, grayling, and ling cod. One long-time resident remembers fishing with his father several years ago at the Canning River. They caught many ling cod using spears.

Formerly when Kaktovik people were living at the traditional sites along the coast, they would make fishing trips up the Canning River in the fall and at any time during the snow season, staying several weeks or longer. Now, however, trips as far as the Canning are usually made in the spring when there are long daylight hours for traveling. A group may travel the coastal route from Barter Island to the Canning River delta, then follow the river inland. Or they may travel inland along the Sadlerochit or Hulahula Rivers and cut over along the north side of the Sadlerochit mountains, to the Canning. Most people do not make this trip every year chiefly because of its distance, but they are familiar with the variety of fish species found in the Canning.

People now living at Kaktovik used to fish through the ice of the Shaviovik, Kavik, Sagavanirktok and Kuparuk Rivers during the snow season. They caught char, grayling, arctic cisco, and black fish (Anayuqaksrauraq) at the confluence of the Kavik and Shaviovik Rivers, and at warm springs called *Siiqsiññak* at about the 400 foot contour line along both these rivers. In the Kuparuk River they caught "big tittaaliq" (lingcod) and grayling. The Kuparuk River from 6 to 25 miles inland was a particularly important winter fishing area for these species. The grayling caught in the Kuparuk "were lifesavers" during the winter of 1941, when some Kaktovik people wintering at *Kanijtuq* in the Prudhoe Bay area were very short of food.

According to Kaktovik people, the Jago River has "no fish whatsoever." There are some smelt in the summertime in the Jago River delta, but they are very hard to get because the water is so shallow.

The Aichilik and Kongakut are both very good fishing rivers. Kaktovik people often fished in these rivers until the mid-1940's, when they lived at traditional sites such as *Uqsruqtalik*, *Pinguksraluk*, and at *Pattaktuq* near the Canadian border. Now that people have congregated at Kaktovik, they have not used these rivers so often. The good fishing spots remain well-known to them however, and the people may utilize these areas more often in the future. The Aichilik River is said to be one of the best places for catching grayling. In early spring 1980, a group of three people fished at the Aichilik River. When people were living at *Uqsruqtalik* and other coastal locations, they went up the Aichilik regularly for grayling and char. "First Fish Hole" on the Aichilik is located at the 1000 foot contour line just before entering the mountains. A second fish hole, known especially for grayling, is several miles further inland near the large tributary which enters from the west. On the Kongakut River, one important fishing area for char was where the Pungautilik River empties into the

Kongakut. Another was on the Pagilak tributary. Char and grayling were caught in the large bend in the river near the 2000 foot contour line. This area was known for its many willows, which provided fishing rods as well as firewood. It was an important winter camping area. Nearer the coast, the stretch of river about six to ten miles inland on the east branch of the Kongakut was another winter fishing area. In winter 1981 a group of Kaktovik people went fishing on the Kongakut, even though no one had fished there for several years.

FUTURE STUDIES AND RECOMMENDATIONS

Although this report presents a large volume of information, a study like this is never complete. Many Iñupiat now living in other Alaskan and Canadian villages are also familiar with historical and subsistence resources in the Arctic National Wildlife Refuge area, and they have not been interviewed. People in Kaktovik also undoubtedly have much more information to add. A major limitation of our study was our inability to speak Iñupiaq Eskimo, which is the first language of most of the adult residents over 30. Fortunately, the State of Alaska Department of Fish and Game, Subsistence Division, has hired an Iñupiaq speaking technician and is continuing to do subsistence land use mapping. They will be producing an updated set of maps within the next several months. The Subsistence Division is also in the process of identifying more Traditional Land Use Inventory (TLUI) Sites within the Arctic National Wildlife Refuge area, and the North Slope Borough is doing more work in this regard.

Certain Kaktovik residents have expressed the desire to document their former subsistence land use and TLUI Sites in the Canadian Beaufort coastal area. Kaktovik people have many relatives living in Canada, and this could be a cooperative project between the two countries.

It is our hope that on-site field investigations can be conducted at all of the sites within the refuge (Fig. 4,5), preferably with some of the Kaktovik people listed as "village sources" for each site (Appendix 3). Whether or not the sites have physical remains, studies are needed to determine exact locations and other relevant archeological and historic documentation so that these sites can be protected even as oil activities proceed. The North Slope Borough has done on-site field investigations at Flaxman Island, and at Brownlow Point within the refuge, using a multidisciplinary team consisting of an archeologist-ethnohistorian and a biologist as well as former site residents (Libbey 1981). This same approach should be used with the other TLUI sites so that the relationship between the archeological, ethnohistoric, subsistence and biological values can be clearly documented and understood. Without these studies, we cannot expect adequate consideration of Iñupiat cultural values.

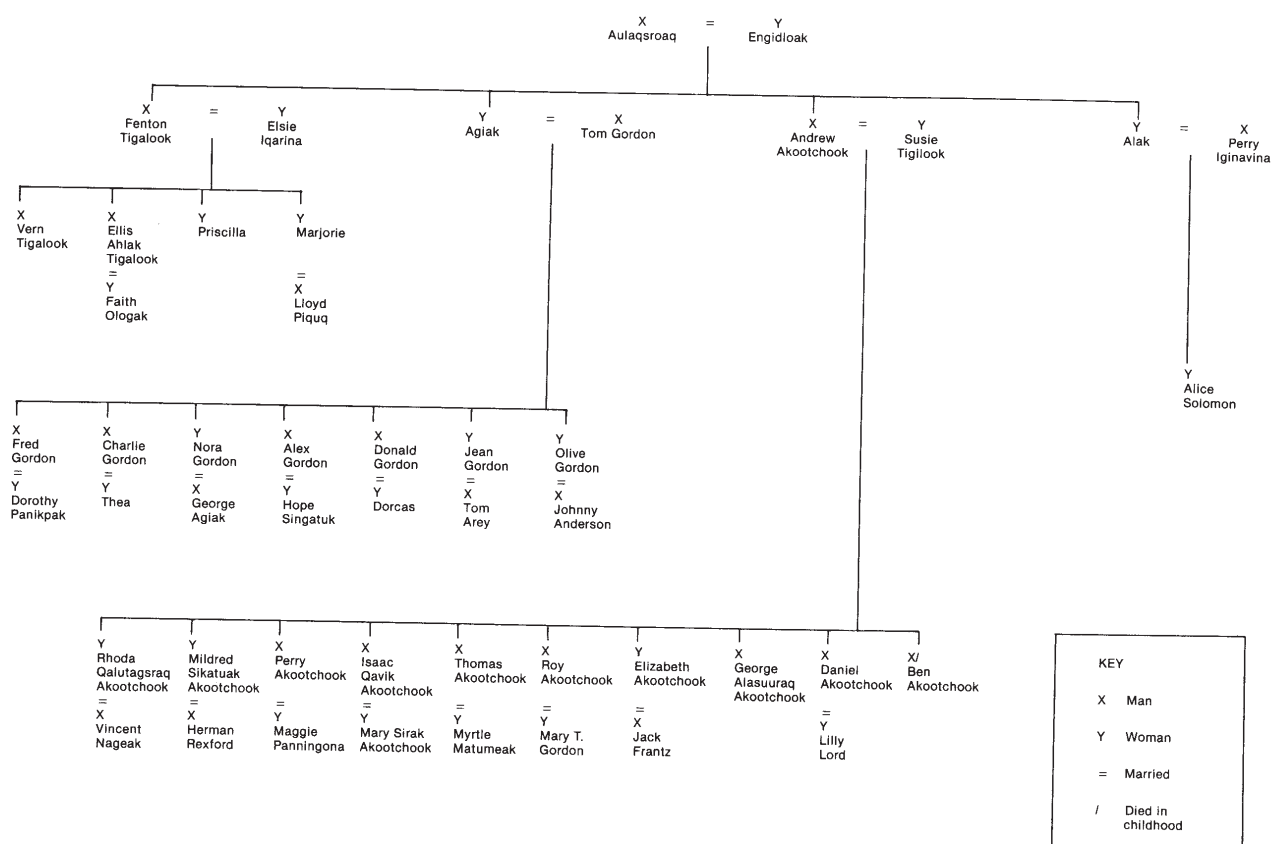
APPENDIX 1

Genealogy

The following tables diagram Kaktovik's three largest interrelated families and also show some of the genealogical relationships of other, connected families. These tables are not intended to be complete genealogies for the people of Kaktovik, but are included to aid the reader in understanding the family connections and kinship ties referred to in the text.

Traditionally, each person of the area had only one name. When English names were introduced early in this century, the traditional Iñupiaq name of the father usually became the family name. The English name then became the given, or first name. Most of the people now have both English and Iñupiaq first names, and an Iñupiaq or English last name depending on who their father or grandfather was. Some of the Iñupiaq first names are included on these tables. Any apparent inconsistency in last names of brothers and sisters, however, is rooted in this transformation of Iñupiaq name to family, or last name.

Table 8. Genealogy: Akootchook family



Village sources: Mildred Rexford, Isaac Akootchook, Georgianna Tikluk, Jane Akootchook Thompson, Olive Anderson.

Table 9a. Genealogy: Gordon family

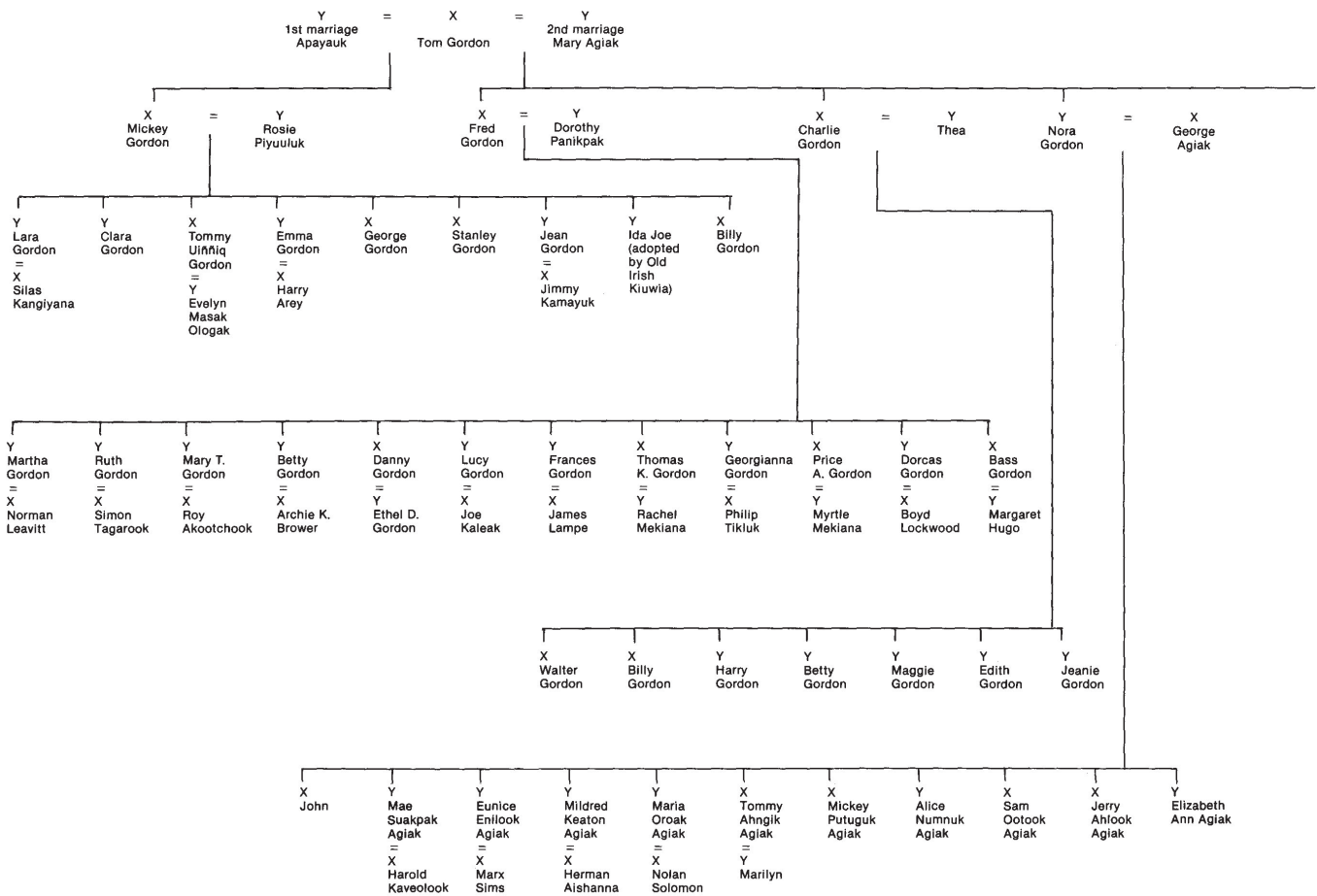
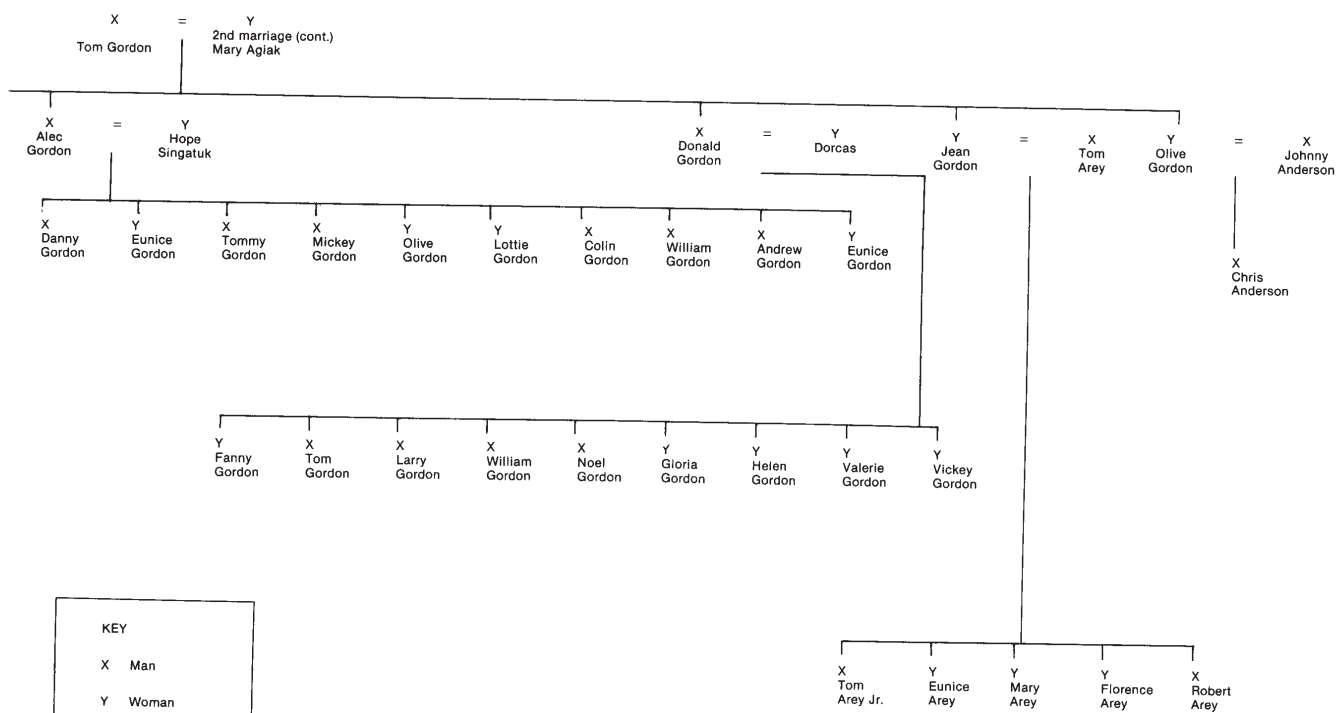


Table 9b. Genealogy: Gordon family



KEY

X Man

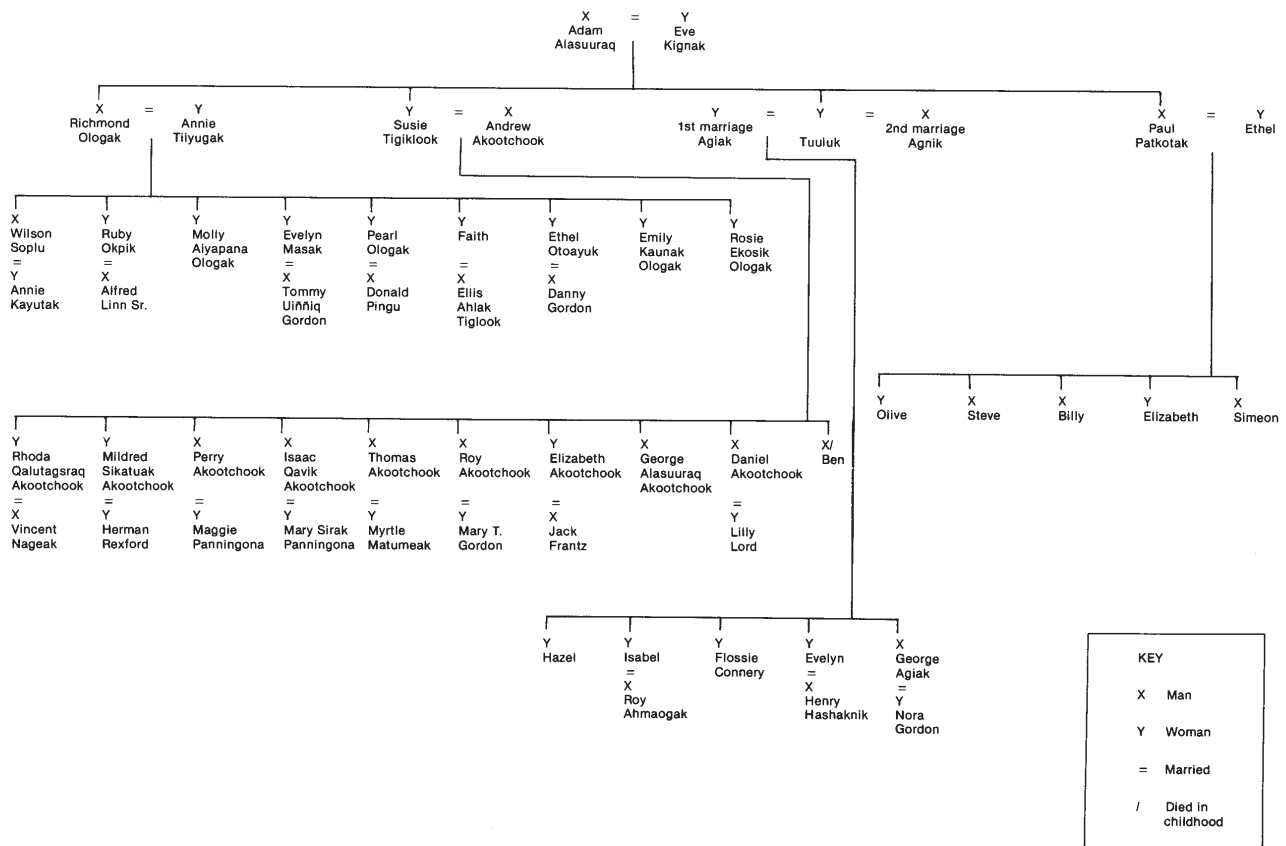
Y Woman

= Married

/ Died in childhood

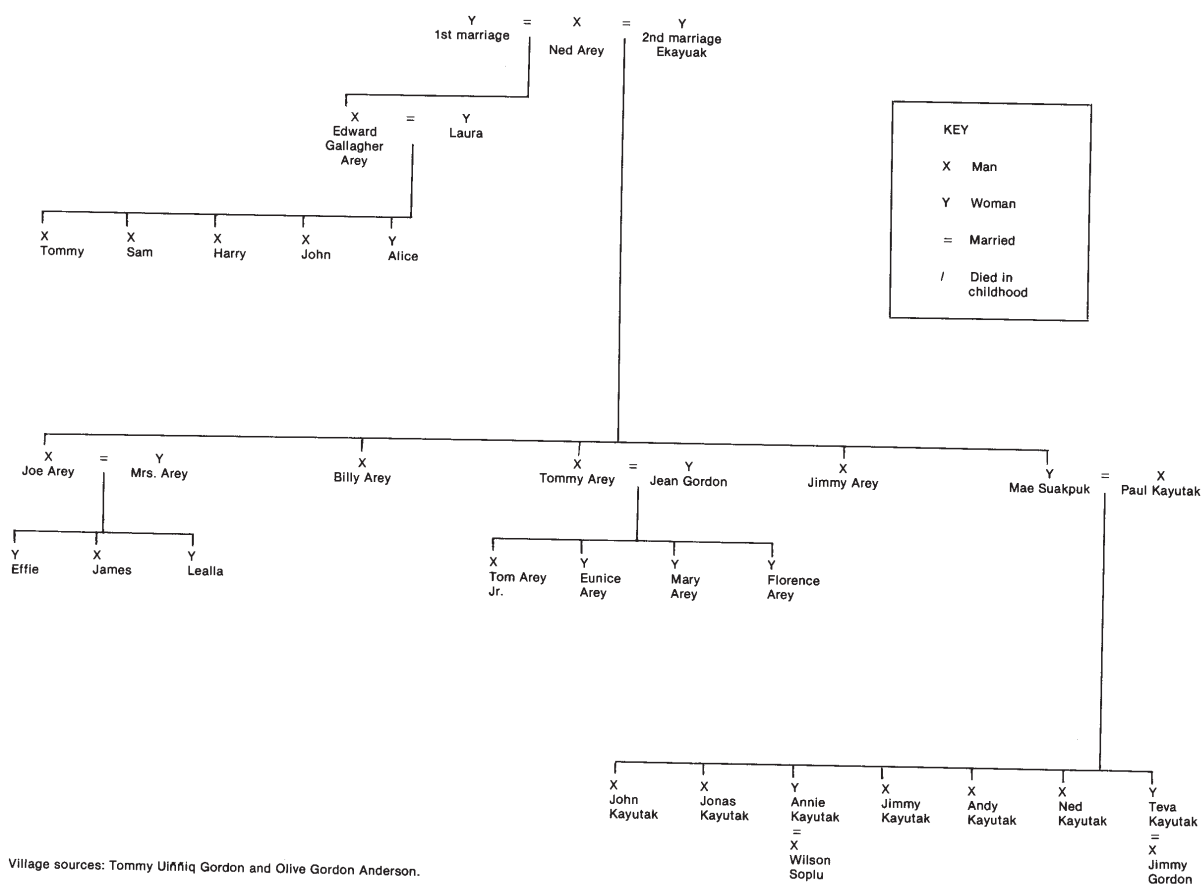
Village sources: Georgiana Tikiuk, Olive Anderson, Tommy Uihlhiq Gordon, Archie Brower.

Table 10. Genealogy: Ologak family



Village sources: Georgianna Tikluk, Eve Ahlers,
Jane Akootchook Thompson, Tommy Uihliq Gordon.

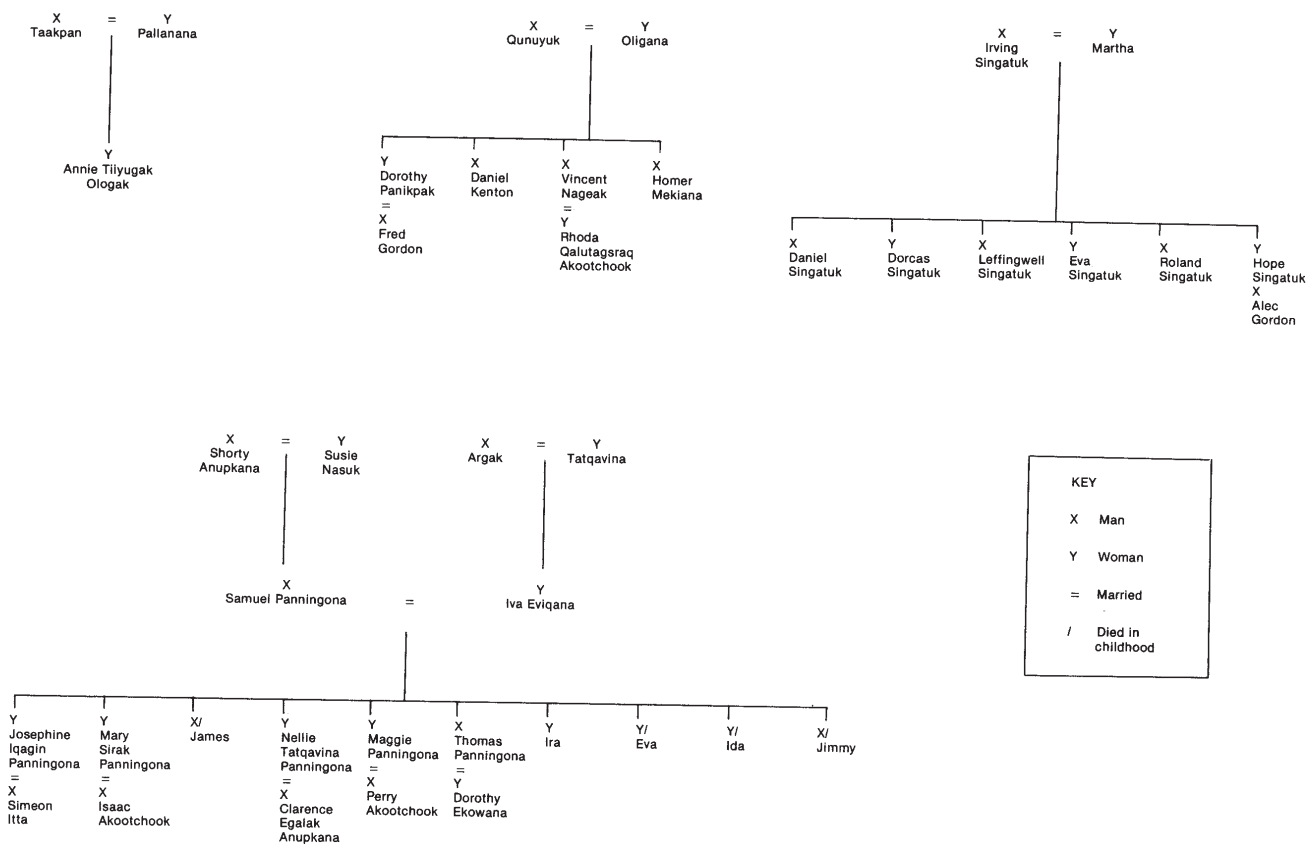
Table 11. Genealogy: Arey family



Village sources: Tommy Ullmiq Gordon and Olive Gordon Anderson.

Other source: U.S. Bureau of Indian Affairs, 1936.
Reindeer Records.

Table 12. Genealogy: Other related families



Village sources: Georgianna Tikluk, Archie Brower, Mary Sirak Akootchook, Jane Akootchook Thompson.

APPENDIX 2

The Reindeer Era

Reindeer were first brought to Alaska from Siberia between 1891 and 1902 by Reverend Sheldon Jackson, the first Superintendent of Education in Alaska (Lantis 1950); but it was not until the early 1920's that reindeer herding began on the coastal plain of northeast Alaska in what is now the Arctic National Wildlife Refuge. These reindeer had apparently been brought over from larger herds at Barrow. The Barter Island reindeer fell under the jurisdiction of the Alaska Reindeer Service's Local Superintendent at Barrow.

The Barter Island herd, as it was referred to by the Alaska Reindeer Service, was actually three main herds kept at separate locations between the Canning River and Demarcation Point. Richmond Ologak kept a herd in the Camden Bay area between Konganevik Point and the Sadlerochit River. Andrew Akootchook's herd, based out of Barter Island, roamed the area between the Sadlerochit River and the Jago River. The third herd, owned by Mickey Gordon, generally occupied the land between the Aichilik River and Demarcation Point, although sometimes the deer were also kept at Barter Island. The total number of deer in the three herds was roughly estimated at 2700 in 1930; by August 1936 the official tally had dropped to 1,172 (US BIA 1936).

Other than small children, nearly every resident of the Beaufort coast was a co-owner of at least one or two reindeer. Even today, Kaktovik children often play a ball game called "Norwegian" (also known as "Lapp game"), probably learned from Eskimo and Lapp reindeer herders of northwestern Alaska.

During winter and spring, herders usually kept their reindeer inland among the foothills and valleys of the north side of the Brooks Range. In summer the reindeer were kept close to the coast. Andrew Akootchook's son Isaac, now in his early sixties, remembers travelling seasonally with the reindeer in a huge circular pattern. In the fall, the Akootchook family took the herd inland, following the Jago River. Then the deer slowly moved from the Jago River west across the foothills to the Okpilak River, over to the Hulahula, and gradually toward the Sadlerochit River. The herd and herders spent much of the winter in the foothill country and entrance to the mountains of the Hulahula River valley. After calving in April and May, they moved north to the coast and Barter Island. Then in late summer they again began advancing back inland, returning to the Jago River where the pattern would begin once more. Herders felt that the vegetation had grown back by the time the reindeer returned to the same locations the following year.

Isaac Akootchook received five reindeer per year as his pay for helping with the herd. He learned the importance of leaving the calves alone, not picking them up or trying to control when or where they fed. "We learned that we just had to let them go on their own," he stated.

Late spring through July was the most difficult time of year to herd because the reindeer were always trying to escape the mosquitoes. During this time, it was very hard for herders to stay with the deer and keep them together. By August and September it was "easy" since the herd tended to move very little.

Wilson Soplu, son of Richmond Ologak, vividly remembers the swarms of mosquitoes that afflicted the herders and their reindeer. He said it was like the dark clouds that form over open water in the frozen Beaufort Sea. Mosquitoes covered the deers' antlers and heads. Soplu's mother applied grease from seal fat to the herders' faces. This grease was even applied to the reindeer to help keep off mosquitoes.

Wolves were sometimes a problem too, particularly at night during stormy weather with blowing snow. Soplu recalls wolves killing as many as four reindeer in a single night. Sometimes he would burn foul-smelling camp fires in an attempt to keep wolves away from the deer.

Soplu helped bring reindeer up the Sadlerochit River each spring from his family's home at *Aana/aaq* in Camden Bay. The deer often calved south of the Sadlerochit Mountains. Soplu felt the coastal area between Konganevik Point and the Sadlerochit River was a good place for reindeer because it was high ground, and drier than the terrain near Barter Island. He thought that the wet conditions near Barter Island in the summer may have contributed to foot problems among some reindeer.

Isaac Akootchook's brother Perry trained reindeer to be "sled deer" — to pull a loaded sled. He attached a single rope to direct a reindeer, and by raising his right arm the deer would turn left...a raised left arm signalled a right turn. To stop, he jerked backwards on the rope. It was, Perry said, important to train them while young. He placed a rope collar on the deer and tied a large knot right in back of the neck. The knot formed a tender spot which a deer was quite sensitive to. "They learn," he said, "that's how you train them."

In the late 1920's, the Canadian government negotiated with the Lomen brothers of Nome to drive 3000 reindeer from near Kotzebue to the eastern side of the MacKenzie River Delta in Canada (Miller 1935). The drive began in December 1929 and lasted until March 1935, passing along the Arctic coastal plain enroute. Lapps were in charge, assisted by Inupiat Eskimos.

For a time, the Lomen herd was in the same area as the local herd of Richmond Ologak. The Ologak herd nearly left with the Lomen herd, but the herders managed to work it out.

Isaac and Perry Akootchook remember the Lapps and their pointed boots. Isaac said the Akootchook reindeer were inland several miles as the Lomen herd passed close to the coast, so there was no problem of mixing between the herds. However, further east there were some difficulties when the Lomen herd entered the area of Mickey Gordon's herd. At Demarcation Point the distance between the coast and mountains narrows considerably; there was mixing of the herds, and Gordon apparently lost some of his reindeer to the Lomen herd.

The winter of 1935-36 was exceptionally severe. Virtually no furs, caribou, seals, or fish were available. Many families were destitute, with nothing to eat but flour. Most of their dogs starved. The snow that winter was deep and crusted. Several reindeer starved, and some were killed by the people for food (US BIA 1936).

In the spring of 1936 the U.S. Department of the Interior's Office of Indian Affairs conducted a brief survey of peoples' subsistence and other food intake and general economic condition to determine their need and desire for more reindeer. Table 8 is a summary of that information from families living at Brownlow Point east to the Canadian border (Ibid). The survey did not include the number of reindeer owned by two of the major herders in the Barter Island area.

Attempts to establish additional reindeer in the Barter Island area were met with failure. In 1937 an unusual December rain fell on top of the snow and then froze. Most of the reindeer, unable to get at their food supply, starved. Wolves killed others. Additional deer were killed by people for food and clothing.

To provide some insurance against another food shortage a herd of 3000 reindeer from the Barrow herds was driven to the Barter Island area in late 1937. Several Inupiat men from Barrow, and others who lived further east in or near Canada, were hired to drive the herd. They approached the Barter Island area in early 1938, then the herd turned back toward its home range at Barrow, and took nearly all of the remaining local reindeer with it. This discouraged the people so much that they killed what few animals remained, and the era of reindeer herding in northeast Alaska came to an end.

Table 13.
Economic situation after severe winter of 1935-36.
People living between Brownlow Point and Canadian border. Spring 1936.

Number of persons in family	Number of reindeer owned	Number of reindeer used for food, one year	Number of reindeer used for clothes ¹	Number of dogs owned	Number of seals taken ²	Number of foxes taken ²	Fish caught ²	Comments:
Brownlow Point								
5	(262.43)*	none	?	7	30	24	?	
9 (2 families)	14,(85.96)*	4	scarce, some caribou	7 (starving)	8	8 (1 red fox)	no fish in winter	"Destitute"
6	1,(63.23)*	"none, caribou and buy"	none	15	29	29	"January"	
9	3,(107.98)*	1	"buy"	9	15	?	no fish since Christmas	"Caribou and sheep scarce"
7	5,(10.50)*	caribou	caribou skins	9	62	9	till Christmas	"Destitute"
Canning River mouth								
8	none	6 deer in 3 years	none	?	2	9	?	"Destitute. Straight flour, no food for 4 days. Boys healthy and girls dying from slow starvation and tuberculosis"

* Reindeer owned in herds west of the Canning River, including Barrow and Takpuk herd. Fractional numbers indicate shareholder ownership in Barrow herd.

**Reindeer owned in Barter Island herd.

¹ No time period given, may have been reindeer clothing present at the time.

² No time period given, but probably represents the number taken during the fall and winter season of 1935-36.

Note: This survey did not include the number of reindeer owned by two of the major herders in the Barter Island area.

Source: US Bureau of Indian Affairs. 1936. Reindeer Records, University of Alaska Archives, Fairbanks.

Table 13 (continued)
Economic situation after severe winter of 1935-36.
People living between Brownlow Point and Canadian border. Spring 1936.

Number of persons in family	Number of reindeer owned	Number of reindeer used for food, one year	Number of reindeer used for clothes ¹	Number of dogs owned	Number of seals taken ²	Number of foxes taken ²	Fish caught ²	Comments:
Konganevik Point								
3	1,(1)*	1	2 in 2 years	6	none	4	none	"Living on sheep. White food in evidence. White man robbed cache of spring meat. Destitute."
7	30,(76.42)*	?	4	10	30	21	"middle of March"	"Caribou and sheep plentiful. Ptarmigan plentiful in spring and fall. Masoo-Eskimo roots."
Barter Island								
21 (4 families)	?	12	13	27	60	?	?	"Flour and meat diet"
11	100	15	11	10	7	19	"few"	
5	(8.68; 52)*	none	6	7, 3 starved	13	7	"till Christmas"	"One bear. Destitute."
9	40,(1)*	3	7	6, 3 died	11	9	none	
East Barter Island								
?	1	9	9	"more than 20"	"few in the fall"		4	(4; 46)*
12 (3 families)	11.18*	4	none	2 left	7	44	"few"	"Destitute. Ate skins of kayaks during winter."
Aichilik - Icy Reef								
3	6	1	none	3, 6 died	?	7	?	"Destitute. Children ate raw flour when given."
5	(67.78)*	4	none	2, 4 died	10	9	none	

* Reindeer owned in herds west of the Canning River, including Barrow and Takpuk herd. Fractional numbers indicate shareholder ownership in Barrow herd.

**Reindeer owned in Barter Island herd.

¹ No time period given, may have been reindeer clothing present at the time.

² No time period given, but probably represents the number taken during the fall and winter season of 1935-36.

Note: This survey did not include the number of reindeer owned by two of the major herders in the Barter Island area.

Source: US Bureau of Indian Affairs. 1936. Reindeer Records, University of Alaska Archives, Fairbanks.

Table 13 (continued)
Economic situation after severe winter of 1935-36.
People living between Brownlow Point and Canadian border. Spring 1936.

Number of persons in family	Number of reindeer owned	Number of reindeer used for food, one year	Number of reindeer used for clothes ¹	Number of dogs owned	Number of seals taken ²	Number of foxes taken ²	Fish caught ²	Comments:
Icy Reef								
8	none	1	4	3, 10 starved	25	25	none	
10 (2 families)	(52.63)*	2	none	12	11	31	?	
6	?	?	?	7, 5 died	30	24	none	
5	30**	3	4	3, 4 died	10	4	"little" (2 months)	
Pingokraluk								
7	none	6	6	11	25	33	none	"Had to use flour to keep dogs alive."
5	none	4	none	7, 1 died	1	5	none	"Destitute. Straight flour when given. Had to use flour to keep dogs alive. One wolf."
Demarcation Point								
9	18**	4	none	2	15	none	"2 months"	"Destitute."
10	90**	12	none	3, 11 starved	1	9	none	"Had to eat seal boots during winter. Straight flour diet at present."

* Reindeer owned in herds west of the Canning River, including Barrow and Takpuk herd. Fractional numbers indicate shareholder ownership in Barrow herd.

**Reindeer owned in Barter Island herd.

¹ No time period given, may have been reindeer clothing present at the time.

² No time period given, but probably represents the number taken during the fall and winter season of 1935-36.

Note: This survey did not include the number of reindeer owned by two of the major herders in the Barter Island area.

Source: US Bureau of Indian Affairs. 1936. Reindeer Records, University of Alaska Archives, Fairbanks.

APPENDIX 3

Traditional Land Use Inventory Sites

Flaxman Island – TLUI Site MB 20

Location: In the Canning River delta region, about three miles offshore from the Staines River delta between Pt. Thomson and Brownlow Pt.

Meaning: Flaxman Island has three Iñupiaq names. *Qikiqtaq* means "big island." *Kuugruaq* means "Canning River." *Sirak* means "animal den," or in this case, "place where polar bears come in to cover themselves up with snow and have their cubs." The English name was given by Sir John Franklin during his 1826 expedition, for John Flaxman, an English sculptor and artist. When Archdeacon Hudson Stuck visited the island in April 1918, he felt this name was given because this artist's cameos resembled the lines and colors of Flaxman Island. (Stuck 1920: 289-290)

Note: Credit is given the North Slope Borough for permission to reprint the following information. Some of this information was prepared by Cynthia Wentworth for the Borough's Mid Beaufort Sea Coastal Zone Management Plan (Wentworth 1979b). This and additional information was later published in the Borough's Mid-Beaufort Sea Traditional Land Use Inventory and Cultural Resource Site Identification (North Slope Borough 1980; Libbey 1981). Further information on Flaxman Island can be obtained from these sources. For a list of historic structures, map, diagrams, and pictures of the sites at Flaxman Island, see (Libbey 1981).

Census: US BIA 1938: 10 people.

The remains of a cabin at the former campsite of explorer/geologist Ernest Leffingwell are located on the southwest shore of Flaxman Island. This site was placed on the National Register in 1971 and became a National Landmark in 1978. Nearby is the Samuel Panningona house, built in 1924 and moved to its present location in 1934. A historic site sign placed over the entry often causes confusion; many think that it is Leffingwell's house. Panningona's daughter, Mary Sirak Akootchook of Kaktovik, now owns the house and she and her husband Isaac continue to use it, as it is in relatively good condition.

On the south side of the eastern end of the island are the remains of three sod houses, two cellars, and a rack or cache. Little is known about this historic site, and more interviews with elders are needed to determine its significance and document house ownership. Archeological testing may be warranted. (Libbey 1981: 9).

Flaxman Island is historically significant both as Leffingwell's campsite and for its continuous usage by Iñupiat for hunting, fishing, and trading. Ejner Mikkelsen, who lived on the island with Leffingwell, reported in 1906 that "on the extreme west end of Flaxman Island there were some houses in ruins, while some tombs showed the last inhabitants had died, caught, as we learned later, in a blizzard and frozen to death" (Mikkelsen 1909:98, as cited in Libbey 1981). This demonstrates the island's long occupation prior to the arrival of non-Natives.

John Miertsching, aboard the *Investigator* in August 1850, was one of the first to mention habitation on Flaxman Island when he noted tents and men. Vilhjalmur

Stefannson and Leffingwell both refer to annual trade fairs at Flaxman Island during early August, people travelling there by boat from Barrow and Herschel Island (Libbey 1981:8,9)

Otis Ahkivgak, now of Barrow, and his family began wintering at Flaxman Island after the measles epidemic of 1902. Many people had died during the epidemic, including many of the runners for the trading fair. Otis remembers the names of several other people who wintered at Flaxman Island.

From 1906 to 1913, Ernest Leffingwell used Flaxman Island as a base for his scientific work and mapping of the Arctic coast for the U.S. Geological Survey. He also had a trading post here. Captain Ejner Mikkelsen wintered with him in 1906. The explorers Samuel McIntyre and Storker Storkerson also lived here for a time, and Stefannson spent time with them here on several occasions (North Slope Borough 1980:77).

Several Iñupiat worked with Leffingwell in his explorations, but he did not list their names in his narrative. His name continues on in the Iñupiat culture, however, as several people were named after him (Klerekoper 1937:20; see TLUI sites *Pukak* and *Qaaktugvik Second Location*).

In the spring of 1918, Hudson Stuck and his guide George Leavitt Jr. were travelling along the Beaufort seacoast and reached Flaxman Island on March 28, just as a storm hit. Their party stayed in Leffingwell's abandoned house, where they were weathered in until Easter Sunday March 31. They found an extensive library of valuable books that Leffingwell had left behind, but many of the pages had been torn out for use in starting fires (Stuck 1920: 289-290).

Also in 1918, Elijah Kakinya (now of Anaktuvak Pass) and his family were living at Flaxman Island. Then, in the summer of 1921, Samuel Panningona, his wife Iva Evikana and their ten year old daughter Josephine moved to Flaxman Island from Barrow. Their daughter Mary Sirak Akootchook was born just after the Panningonas reached Flaxman Island, in September 1921; hence her name Sirak which is one of the island's Iñupiaq names. The family lived in Leffingwell's abandoned house for three years until 1924, when Samuel Panningona built a house nearby for the family out of driftwood and sod. For a description of the Panningona family's subsistence activities in the Flaxman Island area, see (North Slope Borough 1980: 77-78; and Appendix 4).

On April 3, 1926, Jennie Ahkivgak, now of Barrow, was born on Flaxman Island. Her father, William Ekolook, took her mother to the Panningonas' before the baby was born so her mother would not be alone during birth.

Josephine Itta remembers that Leffingwell had a sundial by which her father set his watch. Vincent Nageak of Barrow also remembers people setting their watches by this sundial. While its concrete block base is still in place, the metal dial is missing. In the 1930's trader Henry Chamberlain disassembled Leffingwell's house and moved it to Brownlow Point, where it served as a warehouse for his trading post (Libbey 1981:10).

In 1933, botanist Isobel Hutchinson was travelling on Gus Masik's trading boat, the *Hazel*, from Barrow to *Tapqauraq* (Martin Point). The well-known Eskimo Tigutaaq, who was on the crew, got off when the boat anchored off Brownlow Point and went to Flaxman Island. His grown son took over until they reached Martin Point. The *Hazel* was also towing the Panningonas' canvas-covered umiak, with Panningona and his daughters Josephine and Eva aboard. It was piled with trading goods for Flaxman Island (Hutchinson 1937: 146).

In the early 1940's Samuel Panningona's brother, Harlan Okomailuk, built a house on Flaxman Island, and the sod foundation still remains. Several other families also lived at Flaxman Island during the 1920's to the 1950's, including Alfred Linn Sr. and

Wilson Soplu of Kaktovik (for other former residents, see North Slope Borough 1980: 78; Libbey 1981: 10-11). In the flu epidemic of 1945, quite a few people died at Flaxman Island: among them were Henry Silameotchiak and Clifford Savak's wife Tooglak, who are buried on the eastern end of the island. A few years later, between 1947 and 1949, Samuel Panningona brought his family back to Barrow (Appendix 4; Libbey 1981: 10).

Presently, people may hunt caribou, waterfowl, and seal and fish in the vicinity of Flaxman Island. A bowhead whale was butchered here in 1973 by Thomas Napageak, a Nuiqsut whaler (Libbey 1981: 11). The island serves as a "caribou corral" during summer months, as caribou sometimes go here to escape the heat and the mosquitoes.

Village sources: Mary Sirak Akootchook, Josephine Ekaggin Itta, Jane Akootchook Thompson, Tommy Uinñiq Gordon, Archie Brower, Herman Aishanna.

Agliguagruk — Brownlow Point — TLUI Site MB 46

Location: Northern tip of the Canning River delta.

Meaning: "A person's jaw," which the point of land resembles.

Census: US BIA 1938: 37 people; U.S. Census 1939: 27 people (listed as "Brownland Point")

Note: Credit is given the North Slope Borough for permission to reprint the following information. Some of this information was prepared by Cynthia Wentworth for the Borough's Mid-Beaufort Sea Coastal Zone Management Plan (Wentworth 1979b). This and additional information was later published in the Borough's Mid-Beaufort Sea Traditional Land Use Inventory and Cultural Resource Site Identification (North Slope Borough 1980; Libbey 1981). Further information on Brownlow Point can be obtained from these sources. For a list of historic structures, map, diagrams, and pictures of the sites at Flaxman Island, see (Libbey 1981).

Historic remains at Brownlow Point include several structures along the northeast side. Near the tip of the point is a Teledyne tower and an abandoned DEW Line building which is protected by a breakwater of 55 gallon drums. On the west side of the point are the graves of 11 former residents, some enclosed by a picket fence (Libbey 1981: 10, 12).

Otis Ahkivgak (now of Barrow) was brought to *Agliguagruk* by his parents sometime between 1891 and 1902, and his earliest memories are here. After his family moved to Flaxman Island, they continued to return to *Agliguagruk* in the summer to fish. After 1921 the Panningonas, who lived at Flaxman Island, often had their summer camp at *Agliguagruk*, hunting caribou and waterfowl and fishing along the coast (Appendix 4). Mary Panningona Akootchook recalls that her uncle Clifford Saavgaq and family, her aunt Julia and Julia's husband Tigutaaq, and the Agñiñ family all lived here year round.

In 1923 Henry Chamberlain came to Brownlow Point, setting up a trading post which he operated until 1943. Here, Iñupiat traded their furs for merchandise such as flour, sugar, tea, coffee and ammunition. In the 1930's, Chamberlain disassembled Leffingwell's house on Flaxman Island and moved it to Brownlow Point where he used it as a warehouse for food, clothing, and textiles. In front of the remains of this house is a collapsed wood frame, the ruins of a rack used for drying polar bear skins. Towards the beach lies Panningona's sled which was sometimes used with a sail (Ibid 1981: 11).

Peter Wood, an Iñupiaq reindeer herder on the Lomen Brothers' drive from Nome to Canada, recalled trading at Chamberlain's store in the spring and summer of 1932. He sold Chamberlain four white fox furs for \$100 worth of "grub." Also, Captain Pederson of the *Patterson* stopped at Brownlow Point with supplies for these herders, in mid-July. During the same year, 1932, Ira Rank of Nome arrived here in his boat, the *Trader* (Miller 1935: 162-164).

Scottish botanist Isobel Hutchinson stopped at Brownlow Point on September 15, 1933, enroute to Martin Point from Barrow on Gus Masik's boat, the *Hazel*. Hutchinson describes Brownlow Point as the site of a small Native village and a store owned by Chamberlain, who was working as an engineer on Masik's boat. Chamberlain travelled to *Tapqauraq* (Martin Point) and then brought the *Hazel* back to Flaxman Island, where he beached it for the winter. Hutchinson describes her Brownlow Point visit this way:

I went ashore with one of the boats which came out to unload flour, gasoline, planks for house-building, and innumerable other commodities. The few inhabitants, mostly women, met me on the beach with smiles, and all shook hands. It was, I was told later, the first time some of them had seen a white woman. One girl who had been 'outside' spoke a little English, but conversation with the others was impossible save for a few words of Greenlandic Eskimo which I tried with indifferent success.

The women as well as the men were presently all busy helping to unload the winter stores for the 'shop,' so I went on a walk by myself along the lagoon through the snow which was already knee-deep in places, preventing me from going far. The native houses were mostly built of turf and stone like those of the Greenland Eskimo, but only the dogs had been left at home, so I did not try to enter any.

I watched one of the loveliest sunsets I ever saw, even in Alaska. The blue Endicotts were in distant shadow with the sun falling behind them, coloring the still waters of the lagoon first a greenish emerald and then a lovely rose. All was still as glass, the snow-wrapped sandspit and the ice floes mirrored in the tranquil sea. A few eider muttering and chirping, and the distant cry of some village dogs, were the only sounds. I thought how peacefully and beautifully the great bustle of the North American continent tailed out to this Arctic solitude, like the tranquil end of some bustling life. As I turned to retrace my footprints through the snow to the village, I saw crossing the moor the first Alaskan dogsled I had seen in motion.

It had come from eastward, and was driven by an old couple who had set out at first rumour of the boat's arrival (rumour travels fast by Eskimo "radio"). The old woman had the blue stripes down her chin of the old-style wife. They stopped to shake hands and stare at me, but as they talked no English, I could only understand the word "tupa" (tobacco). As I had none, they hastened on to the store to obtain their eagerly desired and only luxury (Hutchinson 1937: 146-147).

Hutchinson also met Mrs. Tigutaaq (Julia Nasugiluuk) here at Brownlow Point, who came aboard the *Hazel* to greet her husband Tigutaaq and to have a "coffee party" celebrating his return (See *Flaxman Island* and *Tigutaaq sites*).

During April 1937, Reverend Fred Klerekoper and Roy Ahmaogak travelled by dogsled from Barrow to Demarcation Point and back. Each way they stopped at Brownlow Point and stayed with Chamberlain:

Henry is a bachelor and health food bug. But his ideas seem logical and he's well-read. . . Henry has blue wrapping paper on the walls. There are many bags of meal in the room, and several slabs of bacon. He does business in a different way than the others and is a meticulous bookkeeper. We have a prayer meeting in an igloo with about five people present. The window is of seal intestines split and sewn together. There is a low door, but the room is what one might term chaotic.

There are driftwood logs in the ceiling and a skylight window, and racks to keep the dogs off it. In Henry's room is: a Remington noiseless typewriter (portable), shavings for a morning fire, sacks of all kinds (flour, cornmeal, rolled oats), a portable phonograph, books all over the place, shelves for medicines, a bed, table, needle rack, hunting rules, picture of a ship, home-made cabinets, and a five-gallon oil tin for slop. Henry freights from Barrow once a year coming there to meet the ship which brings in the supplies (Klerekoper 1937: 7).

On the return trip, communion was held for the Brownlow Point people. "The Eskimo problems are many and the food is scarce. Not many foxes this year . . . the Natives gather to see us off" (Ibid: 6,7,17).

In 1943, Henry Chamberlain closed his trading post at Brownlow Point, leaving all his remaining merchandise to the Panningona family. The Panningonas had taken care of him when he first arrived in the area and provided him with suitable fur and skin clothing. Chamberlain's trading post was one of the last Alaskan Beaufort Sea posts to close after fox fur prices declined in the 1930's. After Chamberlain left, Kaktovik residents either moved or started trading at Herschel Island or Aklavik, Canada.

Mary Panningona Akootchook's paternal grandparents Susie Nasook and Shorty Anupkana, and Mary's maternal grandmother Tatkavina, are all buried here at *Agliguagruk*. Andrew and Susie Akootchook's youngest son Ben is also buried here; he died in 1946 of an accidental gunshot wound, at the age of 12. (North Slope Borough 1980: 78).

Village sources: Mary Sirak Akootchook, Jane Akootchook Thompson, George Akootchook Mildred Rexford, Alfred Linn Sr., Tommy Uinñiq Gordon.

Tigutaaq — TLUI Site 1

Location: Canning River delta, by the Tamayariak River where it joins the Canning.

Meaning: Tigutaaq was a well-known man who had a house at this site.

House ruins belonging to Tigutaaq and others are at this site. A grave marker is also at this site or nearby.

Tigutaaq lived both in this area and in the Barter Island area. He lived and trapped at Barter Island in the early part of this century, before it became a settlement. He was the husband of Julie Nasugiluuk, Mary S. Akootchook's maternal aunt. His grandson, Pipsuk, is associated with one legend of how Kaktovik got its name (See *Pipsuk Point* site description).

Tigutaaq was on the crew of Gus Masik's trading boat *Hazel* when the botanist Isobel Hutchinson made her trip from Barrow to Martin Pt. in 1933. When they reached Flaxman Island, he remained there and his grown son took over until they got to Martin Pt. Hutchinson refers to him as "Old Tigutaak," and Mary S. Akootchook has verified that he was already an old man in the 1920's, when she was small (Hutchinson 1937).

Village source: Mary S. Akootchook

Kayutak — TLUI Site 2

Location: On the coast near the Canning (Kuugruaq) River delta, and about 2 or 3 miles west of *Kajinñiivik*.

Meaning: Kayutak is the name of the family who lived here.

An old house ruin is here, and old utensils have been found. The house belonged to Paul and Mae Suapak Kayutak, parents of Annie Soplu of Kaktovik.

Other indicators of this site are a large log half-buried in the sand, and several large rocks. According to village people, this is the only place along the Alaskan Beaufort coast where one must be careful of rocks when travelling in a boat. Kaktovik people have questioned whether there may not be another boulder patch in this area.

Village sources: Danny Gordon, Herman Rexford, Marx Sims, Johnny Anderson, Olive Gordon Anderson.

Kaḡiññiivik — Konganevik Pt. — TLUI Site 3

Location: East of the Canning (Kuugruaq) River delta, on the west side of Camden Bay. Cabins were located both on the tip of the point itself, and on the mainland near the small spit and lake, directly south-southeast of the point.

Meaning: Long ago, Eskimos were driven to this point by the Indians so the Indians could starve them and kill them all. But the Eskimos hunted seal and fish and lived, while the Indians watched at the narrow part of the point. The Eskimos lived, and the Indians had to leave when they ran out of food.

Census: BIA 1938: 7 people; U.S. Census 1939: 24 people.

The area is known for its caribou hunting, both in the past and presently. In the old days, people would catch caribou here in the summer by driving them out on the point, blocking the path between the caribou and the mainland. Now, *Kaḡiññiivik* is one of Kaktovik's most important caribou hunting areas, in both summer and winter. In 1978 and 1979, Kaktovik people hunted here during November and January as well as July, August, September.

The cabin by the small lake on the mainland belonged to Richmond and Annie Ologak and their family. Richmond's brother Paul Patkotak also lived here.

Richmond and Annie's daughter Pearl had a son, Adam Pingo, who died and is buried here. Pearl now lives at Tuktoyaktuk, N.W.T., Canada.

Charlie Kupak used to have a house near *Kaḡiññiivik*. His two children are buried here: one was named Benjamin Silamiok. Charlie went off to Canada, where he died.

Village sources: Ruby Okpik Linn, Maggie Linn, Tommy Uññiq Gordon, Danny Gordon, Wilson, Soplu, Archie Brower.

Katakturak — TLUI Site 4

Location: On the west side of the Katakturak River, about six miles due south from the coast.

Meaning: Named after the Katakturak River; "Kataktu" means "you can see a long way."

This is where the moviemaker Charlie Kimrod is buried. Kimrod, a moviemaker for Captain Louis Lane, was in Alaska helping to make the first "white man's picture" of walrus. He had been on a Brooks Range sheep hunting trip with Henry Chamberlain (see Brownlow Point site) and Captain Larson. They were returning to the coast by dog team when they hit a storm and Kimrod froze to death. Larson assumed that Kimrod was lost and died out on the ocean. But two reindeer herders, Apayauk and

Wilson, discovered the body here at this spot and buried it. Levi Griest, now of Barrow, thinks the government should mark this grave and put it on the record (North Slope Borough 1980: 142).

Village sources: Levi Griest (Barrow), Archie Brower.

Nuvugaq — Point Collinson (POW "D") — TLUI Site 5

Location: The point and spit in Camden Bay, just east of Simpson Cove and west of Marsh Creek

Meaning: *Nuvugaq* means a point of land which juts out into the ocean, such as the one here.

Point Collinson was named for Captain Richard Collinson of the H.M.S. *Enterprise* who explored along the north coast of Alaska in 1851 and in 1853-54 (Orth 1967: 231).

Nuvugaq, an old village site, is now an important campsite and waterfowl hunting area for Kaktovik residents. The explorer Ejner Mikkelsen found numerous abandoned Eskimo houses here in 1908, and felt it must have been a large village at one time (Nielson 1977a: 38).

George Agiak, whose family had a house at *Nuvugaq* in the 1920's stated that he remembers seeing an old house at this site that belonged to Captain Ronald Amundsen.

Nuvugaq was also tried as a site for a trading post, but was apparently never a successful one. Stefansson, in his book *My Life with the Eskimo*, describes visiting the trader E.B. "Duffy" O'Connor here in May of 1912. O'Connor had come from Nome with his store of trade goods the summer before, but had not had a successful trading year. According to Stefansson, the country was not rich in foxes, and besides, the explorer Leffingwell already had a trading establishment at *Flaxman Island*, only 60 miles to the west. Stefansson came here and put up a store for Captain C.T. Pederson. It was located across, "on the other side," from where the old DEW Line facility is. Jack Smith dynamited out a hole for the house. However, he apparently did not remain too long at this location, returning instead to his post at *Foggy Island* (MB 12).

During 1913-14, two ships of the Canadian Expedition wintered here. In the spring of 1914, the Expedition consumed about 20 ptarmigan daily for two or three months. Most of these ptarmigan were secured within 15 miles of their camp (Leffingwell 1919: 65).

George Agiak's family and the Ologak family both lived at *Nuvugaq* off and on during the 1920's. Agiak's mother Tuuluk and Richmond Ologak were brother and sister, and their mother Eve Kignak also lived with them at this site.

Levi Griest and his family (Kunagraks) moved here in late 1924 and built an iglu. Levi lived here off and on until 1935. They also had some ice cellars. Levi thinks there are still some remains of their house at this site, and when interviewed in March, 1979, he wanted to get a "skidoo" so he could go inspect it (North Slope Borough 1980: 142).

The Air Force DEW Line Station known as "POW D" was built here in the 1950's and some Kaktovik people worked here. However, now all the military buildings are abandoned.

Nuvugaq continues to be an important campsite for waterfowl hunting, especially in May and early June. Several of the Kaktovik families come for a few days to a week or more, and hunt seals and ugruk as well as brant, pintails, and oldsquaws. This site is used later in the summer for fishing, and at various times throughout the year for caribou hunting. Arctic fox are trapped here during winter months.

Village sources: George Agiak, Wilson Soplu, Levi Griest, Mildred Sikatuak Rexford, Jane Akootchook Thompson.

Kunagrak — TLUI Site 6

Location: Camden Bay, at the mouth of Marsh Creek, on the east side. For exact location, see the spot marked "cabin" on the U.S.G.S. map, Mt. Michelson (D-2) quadrangle, Scale 1:63,360.

Meaning: "Kunagrak" is the name of the family that lived here.

John Kunagrak built a large ice house here, and used it for a trapping cabin for quite awhile. His son Levi in Barrow has told Wilson Soplu of Kaktovik that John used to store all his tools, including his *sikṭaq* (ice pick) and shovel, down inside this ice house, and leave them here while he was gone. Alfred Linn Sr. of Kaktovik also lived here for a year, and trapped foxes. There are no graves at this site, as far as Wilson Soplu knows.

About two miles east of this site is Iqalugliurak Creek, an especially good location for fishing (On the USGS map as "Carter Creek," this English name was unfamiliar to Kaktovik resource people). The word *iqaluk* means fish, and Iqalugliurak means "little creek with lots of fish." Iqalugliurak Creek is especially good for fishing during the month of June. Arctic char (*iqalukpik*) and arctic cisco (*qaaktaq*) are caught here.

Village sources: Wilson Soplu, Mary S. Akootchook.

Aanalaq — Anderson Point — TLUI Site 7

Location: Anderson Pt. is just to the east of Camden Bay, between the Bay and the mouth of the Sadlerochit River. However, the place referred to as *Aanalaq* extends from Anderson Pt. to about two miles southwest of Anderson Pt., to the spot marked "Koganak" on the USGS map.

Meaning: "At the head of the bay."

The Ologak family, now of Kaktovik, lived and herded reindeer here for many years. Their daughter Masak (Evelyn Gordon) was born here on June 9, 1925. The family had a house near the spit marked "Koganak" on the USGS map, on the east side of the small lake (see Mt. Michelson A-1 Quad, Scale 1:63,360). Kunagrak, Patkotak, and Anṛjik and their families also had cabins here on the west side of the lake and herded reindeer.

This area was especially favorable for keeping reindeer because the land is high — almost like a low hill — which made it relatively easy to see the deer and keep track of them. Every spring, Ologaks would take their reindeer herd from here up the Sadlerochit River to the mountain valley south of Sadlerochit Springs, for calving. Then when summer came, they would return to *Aanalaq* with the calves.

Qaggualuk (Levi Griest), son of John Kunagruk, first lived here with his family during 1924. He found many sheep on the Hulahula, so they had enough provisions for the winter. He also had a trapline that started here and went inland west of the Kadlerochilik River. The ocean area around *Aanalaq* was very good for catching

seal. However, it was not good for setting up a fish net in winter, but it did have tomcod (uugaq) which could be pulled out right at the edge of the icebergs. That summer Qaggualuk and his family caught some 500 molting brant (niglingat) towards the Canning River and hauled them to *Aanalaag* for the winter (North Slope Borough 1980: 143; Okakok 1981: 607).

Fred Klerekoper and Roy Ahmaogak visited Ologaks at *Aanalaag* on April 15, 1937, and again on April 22 on their return journey to Barrow. They had coffee here, and Ologak told Klerekoper that there were sheep in the mountains (Klerekoper 1937).

Phillip Tikluk of Kaktovik remembers living at *Aanalaag* when he was about six years old (1943). He was the son of Ellis Tikluk and of Ologak's daughter Faith who both died when he was very young. One of his memories is of his grandfather Richmond Ologak erecting a long pole at *Aanalaag*, which he used as a lookout tower for spotting caribou. Ologak saw a big piece of driftwood floating by in the ocean, went out with his new rowboat, tied a rope around it and towed it to shore. Then he dug a big hole in the dirt, "just like you would for a grave," and put it in. The pole is still there.

Paul Patkotak's son Brian was born at *Aanalaag* while the family was living here. Patkotak was a brother of Richmond Ologak.

Several graves are located at *Aanalaag*. Adam Alisuarak, grandfather and great-grandfather to many Kaktovik residents, died here about 1923 or 1924 while he was living with his daughter Tuuluk and her husband Anjik. He is buried somewhere along the little river flowing into the small lake where the families lived. Other people buried in the area of *Aanalaag* are Paul Patkotak's daughter Mary, Charlie Kupak's daughter Rosie, and Alice Napageak's daughter.

Now, *Aanalaag* is an important spring camping place and migratory waterfowl hunting area for Kaktovik people. A common practice is to make a base camp at *Aanalaag* in late May — in 1978 tents were set up at the spot marked "Koganak" on the USGS map — and then make overnight trips to the mountains to hunt squirrel and marmot.

The hills near *Aanalaag* are said to be excellent for picking berries. Annie Ologak, who died in 1980, was very knowledgeable about this.

Village sources: Mildred Sikatuak Rexford, Mary Sirak Akootchook, Wilson Soplu, Levi Griest, George Patkotak, Ruby Linn, Alfred Linn Sr., Phillip Tikluk.

Salligutchich — Sadlerochit Springs — TLUI Site 8

Location: Near the Sadlerochit River where the mountains begin, at the 1000 foot contour line.

Meaning: "Farthest north mountains."

In the 1920's and 1930's, Kaktovik people brought reindeer herds to the Sadlerochit Springs area each spring for calving. Arriving in March, the first calves were usually born in early April. In June the herd was taken back to the coast.

Salligutchich (Sadlerochit Springs) is an important snow season camping area. In the spring, it is not unusual for 30 to 40 village people to be camped together near here.

Photo 35. Lloyd and Susan Gordon with ptarmigan and ground squirrels taken near Sadlerochit Springs (C. Wentworth).



Grayling (sulukpaugaq) are in the creek here which flows into the Sadlerochit. One woman has fished for them from a rubber boat, and her husband has set short nets for them.

Village sources: Wilson Soplu, Archie Brower.

Sanniqaaluk — TLUI Site 9

Location: On the east side of the mouth of Kajutakrok Creek, between the Sadlerochit and Hulahula Rivers. For exact location, see the spot marked "cabin" on the USGS map, Flaxman Island (A-1), Scale 1:63,360.

Meaning: "The place where there are cabins built of logs all running in the same direction."

Phillip Tikluk Sr. of Kaktovik was born here in a tent on January 25, 1937, when it was "really blowing" outside. He is the son of Ellis Tikluk and of Ologaks' daughter, Faith, who both died when he was very young.

The remains of one of the log cabins here are still clearly visible.

Sanniqaaluk is presently used as a camping area and as a base for caribou hunting. In spring of 1977, two Kaktovik families stayed here in a tent and hunted caribou nearby. Another family got one caribou here in July 1981.

Village sources: Daniel Akootchook, George Akootchook, Phillip Tikluk, Mildred Sikatuak Rexford.

Patkotak — TLUI Site 10

Location: At the mouth the Nataroaruk Creek, between the Sadlerochit and Hulahula Rivers.

Meaning: Patkotak was a brother of Richmond Ologak, Susie Akootchook, and Tuuluk, all direct ancestors of present-day Kaktovik residents, and this site is named after him.

This is one of the places where Paul Patkotak and his family had a house.

Village sources: Isaac Akootchook

Sivugaq — TLUI Site 11

Location: On the Hulahula River, about ten miles from the coast.

Meaning: Long, high bluff area.

Sivugaq is where the main trail from Barter Island joins the Hulahula River. The bluffs here are a landmark and resting place on trips to and from the mountains, as they provide some wind protection. They are also a favorite sliding area for children. Unidentified ruins are at this site (Hopson as cited in Nielson 1977a). The Sadlerochit, Okpilak and Kongakut Rivers each have a place called *Sivugaq* also.

Village sources: Archie Brower, Tommy Uinñiq Gordon, Jane Akootchook Thompson.

First Fish Hole — TLUI Site 12

Location: About 20 miles inland on the Hulahula River.

Meaning: This site is known by the English name, *First Fish Hole*.

This is one of Kaktovik's most popular fall, winter and spring fishing areas, and an important traditional stopover and camping place on trips to the mountains. People fish here for whitefish (iqalukpik) and grayling (sulukpaugaq); fishing for whitefish is especially good here in the fall. The site is also good for "pike" (paigtuk), a fish species that has not been positively identified. In addition, *First Fish Hole* is known by Kaktovik villagers as a gathering place for white fronted geese before they head south in the fall.

No old ruins exist at this site but people now living in Kaktovik have been using it since the 1920's.

Around 1940, in April, the Presbyterian minister Fred Klerekoper came by airplane from Barrow to Barter Island. Finding no one there, he followed the Hulahula River inland. He found the Kaktovik people all camped at *First Fish Hole*, and landed his plane. Klerekoper served holy communion inside a tent. It was so cold the grape juice froze in the glasses before the people had a chance to drink it.

Village sources: Danny Gordon, Mildred Rexford, Archie Brower, Olive Anderson, Perry Akootchook, Herman Aishanna.

Second Fish Hole — TLUI Site 13

Location: About 40 miles inland on the Hulahula River, just south of the mouths of Old Woman and Old Man Creeks.

Meaning: This site is known by the English name, *Second Fish Hole*.

This is one of Kaktovik's most popular fall, winter and spring camping and fishing areas. In some years, many, many arctic char (iqalukpik) may be caught here, as well as grayling (sulukpaugaq). Some families leave a tent up all winter at this location, from October through April. They may spend several weeks at a time here, using it as a base camp for hunting caribou, sheep, and small game. It is not uncommon for 30 or more people to be camped here at one time.



Photo 36. Kaktovik girls Margaret Kaleak and Alice Tikluk with their catch of arctic char at Second Fish Hole (C. Wentworth).

In the 1920's and 1930's, Fred and Dorothy Panikpak Gordon and Tom and Agiak Gordon would bring their entire families here in the spring, by dog team: a two day trip from Barter Island. They would stay until the river started breaking up. The return trip to Kaktovik was often difficult due to lots of water and so little snow; everybody including children had to help pull the sled.

Thomas Napageak's mother Ikiakpuk used to walk from Sadlerochit Springs to *Second Fish Hole* in one day and go fishing, all with a baby on her back.

Village sources: Danny Gordon, Olive Anderson, Wilson Soplu, Tommy Uinñiq Gordon.

Katak — Third Fish Hole — TLUI Site 14

Location: Inland on the upper reaches of the Hulahula River, a few miles south of Kolotuk Creek.

Meaning: "To fall down, or fall off."

The remains of a house belonging to Fred Gordon are located here. He was the father and grandfather of many Kaktovik people, and used to take his entire family here. It is an important present day fishing spot and camping place and serves as a base for sheep and caribou hunting. Lack of sufficient snow cover or too much river overflow sometimes prevents people from reaching this site.

Village sources: Betty Brower, Archie Brower.

Kanich — TLUI Site 15

Location: At the headwaters of the Hulahula River.

Meaning: "Sources of the river."

This is Kaktovik's main winter base camp for sheep hunting. The Agiak family lived here off and on during the winter for several years, beginning in the late 1930's (North Slope Borough 1980: 96). The river branch to the right is an important source of firewood.

Village sources: Archie Brower, Betty Brower, Nora Agiak.

Uqpillam Paaja — TLUI Site 16

Location: At the Okpilak River delta, just to the east of the Hulahula River delta.

Meaning: "Mouth of the river, without willows."

The whaler Ned Arey and his family had a house around here. The explorer Ernest de Koven Leffingwell talks of visiting here in May 1907 right before he, Ned, and Ned's son Edward Gallagher explored the Okpilak River up as far as the west fork. They returned to the coast on July 11, and Leffingwell was here with the Aareys until August 1 (Leffingwell 1919). For more information on the Aareys, see (Appendix 4: Tommy Uinñiq Gordon).

The Hopson family used to live here, and this is probably where they were living when Olive Gordon Anderson and her mother Agiak Gordon used to visit them. Olive remembers spending the night at Hopson's with her mother, and using a sleeping bag which her feet stuck out of. Eben Hopson would tease her, telling her that the mice were going to come eat her feet in the night.

Village sources: Olive Gordon Anderson, Archie Brower.

Naalaglagvik — Arey Island — TLUI Site 17

Location: In the middle of Arey Island, about five miles west of Barter Island.

Meaning: *Naalaglagvik* means "where you go to listen." Arey Island is named after the commercial whaler and explorer Ned Arey, grandfather of Annie Soplu of Kaktovik.

Arey Island is a prehistoric and historic village site. In 1914, the ethnologist Diamond Jenness of the Canadian Expedition was employed in examining this site, and he thought there may have been 30 to 40 old house ruins here (Leffingwell 1919: 67). Several old sod and log structural remains are visible at this site.

The Akootchook family sometimes lived on Arey Island. Isaac Akootchook was born here on March 31, 1922, and Roy Akootchook on January 7, 1926. The family had a reindeer herd from 1922 until the late 1930's, and they often kept them at this site.

Agiak Gordon, wife of Scottish trader Tom Gordon, used to go Arey Island to hunt and trap and to look for artifacts. The story goes that she used to be able to communicate with the birds. She would tell a bird in the Iñupiaq language that she wanted to be shown where the artifacts were. The bird would answer back by alighting on the place, calling out and flapping its wing. Then she would go to that place and start digging, and sure enough she would find artifacts.

Now *Naalagiagvik* is a key migratory bird hunting camp in late May and early June. It is also a traditional seal hunting camp in spring and summer. Fish nets are set around the island in July and August, and arctic char (iqalukpik), arctic cisco (qaaktaq) and pink salmon (amaqtuq) may be taken.

Village sources: Olive Gordon Anderson, Isaac Akootchook, Jane Akootchook Thompson, Tommy Uinñiq Gordon, Mildred Sikatuak Rexford, Georgianna Tikluk.

Iglukpaluk — TLUI Site 18

Location: *Iglukpaluk* is on the western end of the northern coast of Barter Island. On the USGS map as "Elupak (Site)" it is mislocated on both the USGS map and the original TLUI map. It is not at the base of the spit as shown, but is actually about a half mile to the east, on the coast which faces north. It is on the last high point of land before the land slopes downward to the lakes and the spit.

Meaning: "A big house seen from far away." The site is named for Scottish trader Tom Gordon's big house, which was built at this location in 1923.

In April of 1918 Hudson Stuck and his party visited Stefansson's base camp at Barter Island, but it is unknown whether this camp was right at the *Iglukpaluk* site or farther to the east. It was an extensive building, half underground. Stuck did not meet Stefansson, who was away at the time. "We were hospitably received by Captain Hadley, who was in charge, with two other white men and several Eskimo women and children and a great deal of stuff. The schooner *Polar Bear*, belonging to the expedition, lay in the ice." (Stuck 1920: 304).

Tom Gordon established his trading post here in 1923, and his family began living here. They gradually (over a period of years) moved the trade goods from Demarcation Bay to here at *Iglukpaluk* (North Slope Borough 1980: 136). Kaktovik school teacher Harold Kaveolook describes this in his *History of Kaktovik and its Schools*.

... Tom Gordon built a trading post with the help of his Eskimo crew and settled down on Barter Island. There were a few families that settled near Gordon's trading post about a mile to 12 miles around the island, but the place was never a village ... the people would congregate at Gordon's trading post from the vicinity on occasions such as the Fourth of July or Christmas and disperse to their homes after the celebration. Their livelihood was hunting, trapping and fishing ... (Kaveolook 1977: 2).

Levi Griest, now of Barrow, may have been one of the first Iñupiat to visit the new trading post. He made a trip here to get flour the year it opened, in 1923 (North Slope Borough 1980: 140).

In the early years of the post, Indians would occasionally visit. But the visits were sometimes surreptitious. One time Tom's wife, Agiak Gordon, got an order to make a pair of sealskin and caribou hide mukluks. When they were finished, she took them out on the tundra and left them for the Indian to pick up. Sure enough, the next day they had been taken. Another time, an Indian stole a parka from the trading post. But he brought it back because it was too small!

Isobel Hutchinson, in her book *North to the Rime-Ringed Sun*, provides a glimpse of what life was like at *Iglukpaluk* in 1933. First, she tells about passing by *Iglukpaluk* in September of that year:

... The west wind allowed us to hoist all sail, and leaving Flaxman at 7 a.m. we came past Barter Island ... about midday, and saw on the shore the trading post of Mr. Tom Gordon, the veteran Scottish whaler and trader (since 1933 a naturalized American subject). His house from this distance, white with a black roof, exactly resembled some Hebridean farm-house. Tom Gordon has spent nearly 50 years in Arctic Alaska, married a native wife, and reared a large family of strapping half-breed sons and daughters to continue the Clan Gordon in this remote part of the world. When I visited him later for a couple of days at his hospitable invitation, I found Mr. Gordon still hale and hearty, surrounded by his children and grandchildren, though the problem of feeding so many mouths was no easy one, and were it not for the introduction of the reindeer ... it would be well-nigh impossible in a bad hunting year ... (Hutchinson 1937: 148).

Then, on October 25, 1933, Charlie Gordon took Hutchinson from *Tapqauraq* to *Iglukpaluk* in his dogsled, for a two day visit. Here is her description:

... A short distance farther on we reached the trading post of Tom Gordon — a white frame building not unlike a Scottish croft — and were greeted by Mr. Gordon, a tall grizzled Scotsman still in his early 60's, and crowd of sons, daughters, and grandchildren — most of them bearing well known Highland names, and looking for all the world like dark-eyed sons of Harris or Skye. Their mother was dead, but Mr. Gordon had married another native wife, a kindly little woman who was an expert needlewoman, and during the couple of days which my visit lasted she was engaged in dressing reindeer skins to make a new parka for her husband.

Mr. Gordon entertained me very hospitably, though apologizing for the lack of meat. Stores were at a low ebb, but the reindeer herd owned by his sons was expected at any moment from the hills, and indeed arrived on the morning of my departure, though I did not see it. The lack of meat was made up for by beans, stewed raisins and prunes and toasted bread — the women made huge batches of bread daily and were expert bakers.

Though I only intended to remain one night, a blizzard arose on the day following my visit and detained us till the next morning, and the time was passed in the room occupied by Mr. Gordon and his wife, next door to the capacious kitchen which housed the rest of the family — Mr. Gordon pacing to and fro as if he were still on the deck of his ship, waving a constant cigarette and describing to me some of the adventures of his youth when he too, like my host of Martin Point, had run away from home to follow the sea, and never returned.

Mr. Gordon has five sons (a sixth was unfortunately drowned close to Barter Island while boating in 1932), Mickie, Charlie, Fred (always known as Spike), Alec and Donald, and three daughters, Nora (married), Jean, and little Olive, an engaging child of nine, the youngest of the family. The elder sons were also married, with families of their own. Mickie lived some miles to the eastward, not far from Demarcation Point, but as he was on a visit to Barter Island I met him there. As there was no school nearer than Barrow, 400 miles distant, the education of the children was a problem and in spite of her intelligent appearance, little Olive could not yet read or write ... (Ibid: 166-168).

Hutchinson made two mistakes in her descriptions of the Gordon family, quoted above. The native wife that she refers to (Agiak Gordon) was actually the mother of all the Gordon children except Mickey. And Olive was almost 11 years old at the time of the visit, rather than nine years old.

Photo 37. Women and children at Iglukpaluk in summer 1924. Top row left to right: Jenny Nukaparuk with baby Manniqsuk, Lottie Alak, Mary Agiak Gordon, Eunice Hopson, Thea Gordon with baby Betty. Middle row: Alice Solomon, Jean Arey. Bottom row: Fred Nukaparuk, Effie Numnuk, Marge Piquu, Ahnuguyuk, Donald Gordon, Nora Agiak with sister Olive Anderson, Jean Ekowana (Courtesy O. Anderson).

The Gordon family used to have a reindeer herd here at *Iglukpaluk*. Joe Arey worked for them as their herder. Hutchinson describes him taking the deer from *Iglukpaluk* to Martin Pt. in late October, and selling one to Gus. The reindeer skins for her parka and leggings made by Mrs. Arey also came from this herd.

The Presbyterian Elder Nijluk and his family used to come to *Iglukpaluk* from their home in the mountains every October, after a snowcover made dog team travel possible. Olive Gordon (Anderson) used to look forward to this visit because Nijluk's children Jonas Ningeok and Mamie Matumeak always brought her spruce gum, which she used for chewing gum. Jonas Ningeok now lives in Kaktovik, and Mamie visits often from Barrow.



Gordons used to have a very large ice cellar at this site. Here they would put up fish, especially arctic cisco (qaaktaq) which they caught from the spit. These would be stacked in long rows, in layers. Now, the most visible remains at *Iglukpaluk* is an old ice cellar. Much of the area was plowed over and the physical appearance altered at the time of DEW Line construction.

Tom Gordon's big white house was moved several times and divided in half. Now both houses are still in use at Kaktovik's present townsite: one as a residence and the other as the village store.



Now *Iglukpaluk* is a very popular summer fishing camp. Arctic char (*iqalukpik*), arctic cisco (*qaaktaq*) and flounder (*nataagnaq*) are taken by hook and line and in nets.

Village sources: Olive Gordon Anderson, Mildred Sikatuak Rexford, Tommy Uinñiq Gordon, Herman Aishanna, Nora Agiak.

Photo 38. Part of Tom Gordon's trading post is now the Kaktovik village store. Baleen from bowhead whale is in foreground (M. Jacobson).

Tikluk — Akootchook House Site — TLUI Site 19

Location: Southwestern part of Barter Island.

This site was the first place on Barter Island where the Andrew Akootchook family lived. They built a house here about 1919-1920, and spent about two years here before moving to Arey Island. Fenton Tigalook, Andrew Akootchook's older brother, also lived here with his wife Elsie Iqarina and children Vern, Ellis and Prisilla. Okomailuk's family's house is also here. According to Kaktovik resident Wilson Soplu:

"They stayed here for quite awhile. The houses that they lived in . . . look like little hills now. The woods that they put up have fallen down. Some (ruins) have been eroded away. I believe it's Tigluk's family's house. Their house was on the west side and it has eroded. But the houses that are not too far are still there and they are still noticeable. Akootchook's house, who has always lived here, is becoming unnoticeable because of the white men." (North Slope Borough 1980: 194).

Village sources: Herman Rexford, Wilson Soplu.

Qaaktuġvik — Kaktovik (First location) — TLUI Site 20

Note: The North Slope Borough's publication *Kaktovik, Alaska: An Overview of Relocations* (Nielson 1977b) includes a detailed map of Kaktovik's various locations.

Location: Northeast part of Barter Island, on the spit where the airport hangar and runway are now located.

Meaning: *Kaktovik* means "seining place."

This is a prehistoric village site. In 1914 Diamond Jenness of the Canadian expedition counted between 30 and 40 old house sites on the spit running east from Barter Island (Leffingwell 1919). Former Kaktovik schoolteacher Harold Kaveolook also documents this in his *History of Kaktovik and its Schools*:

... There had been a large village at one time many years back which had been abandoned. Only the ruins are there. The people of that village were whalers because there were whale bones: heads, jaw bones, vertebrates, vertebrate discs, ribs, and shoulder blades among the ruins. The Akootchook family used to tell us that from the old village site the vertebrate discs were placed on the beach all the way from the village to the edge of the shore as steps for a walkway. The story goes that the people were driven from their village to the Canadian side by our people through fighting. To this day the people from Canada and Greenland confirmed this by telling the people the same things, i.e. that they were driven east by the Alaskan Eskimo (Kaveolook 1977: 1-2).

This was the location of Kaktovik until 1947 when the U.S. Air Force decided to build an airport on this site and the village had to move. Present-day Kaktovik people built houses here in the 1930's and early 1940's and possibly earlier. Herman and Mildred Rexford built their house here in 1940, in the middle of where the airport runway is now. Georgianna Tikluk, daughter of Fred and Dorothy Panikpak Gordon, was born "right under the airport hangar" on March 15, 1946.

The North Slope Borough's publication *Kaktovik, Alaska: An Overview of Relocations* provides the following information on the forced move from this site:

In July 1947 ... The U.S. Air Force began a large scale build-up of material and construction of a 5000 foot airstrip and hangar facility on the once isolated island. These marked the first stages of the DEW Line construction.

The Air Force began the support phase of its Kaktovik base with the construction of an airstrip which paralleled the beach and followed a long spit of land sheltering Kaktovik Lagoon. For the Iñupiat residents of Kaktovik, the decision of the Air Force to begin construction at this location (Nelsaluk) had drastic and irrevocable consequences, for the engineers had selected their old village site for their runway and hangar facilities. The Air Force abruptly informed the stunned residents that they would have to move immediately, presumably under authority of PLO 82 of 1943 which had withdrawn lands in connection with the prosecution of the war. No specific military withdrawal had been made. Bulldozers hauled the dozen sod and driftwood structures and several frame buildings 1,650 yards up the beach to the northwest where the village was to be relocated. Needless to say, this unexpected and previously unannounced dismantling of their village caused the Kaktovik people considerable grief, hardship, and dismay. Equipment and some operators were provided by the Air Force but most of the labor came from the village. Inevitably, there was destruction and personal loss, and many ice cellars (used for food storage) were buried or abandoned. However, it was almost impossible for the villagers to effectively protest the move because very few spoke any English or understood what was happening, or why. (Nielson 1977b: 3-4).

Mildred Sikatuak Rexford has stated that they moved their house from this site in 1947, after the white people (tanniks) came. She remembers that the first military ship came on August 10, 1947. Mildred's two younger brothers George and Daniel,

who were age 15 and 14 at the time, would hide every time these tanniks came around, as this was the first time they'd ever seen strange white people.

Many artifacts and small items from the old village site are buried under the airport hangar and the gravel runway.

Village sources: Mildred Sikatuak Rexford, Georgianna Tikluk.

Qaaktuġvik — Kaktovik (Second location) — TLUI Site 21

Note: The North Slope Borough's publication *Kaktovik, Alaska: An Overview of Relocations* (Nielson 1977b) includes a detailed map of Kaktovik's various locations.

Location: Northeast part of Barter Island, on the north coast where the spit joins the main part of the Island.

Meaning: Kaktovik means "seining place."

The Akootchook family's house, and what is now referred to as the "old" cemetery, were at this site before there was any village here. The Akootchooks were living here in October 1933 when the Scottish botanist Isobel Hutchinson visited them. Hutchinson writes: "At this house of Andrew (Tom Gordon's brother-in-law, a native licensed by the Presbyterian Church at Barrow as a preacher, and a faithful adherent of that church) we stopped for a cup of hot tea, and made the acquaintance of his wife and family. The house was the usual Eskimo dwelling of driftwood, but contained a sewing machine beside the stove and bunks, and the walls were decorated with pictures and texts." (Hutchinson 1937: 166).

Fred Klerekoper and Roy Ahmaogak also visited Akootchooks here, in April, 1937. They spent the night on their return trip to Barrow, after going to Demarcation Point. Klerekoper's diary, which includes a picture of Andrew Akootchook, states:

We came to Akootchook's home. There is a polar bear cub in the house. To enter this place, you go through a snow entrance into a snow hallway. Many entrances lead from it. Here are kayaks, pieces of sheet iron, and room for dogs. Inside are ten children and a polar bear cub. Andrew has just been elected president of the reindeer company. He is the father of 13 children. Behind the house is a cemetery (Klerekoper 1937: 10).

Andrew's oldest son Perry Akootchook, who was eighteen years old at the time of this visit, had accidentally caught the polar bear cub in a trap the previous month. He remembers that the pet cub was playful just like a puppy dog, biting at one's hand but not hurting it. The family took the bear to Barrow by boat in July, and Perry doesn't know what happened to it. By this time it weighed 400 pounds.

The village of Kaktovik was moved to this site by the Air Force, in 1947. (See *Qaaktuġvik first location*). When Harold Kaveolook came to teach at Barter Island in August, 1951, there were about eight houses and eight families living at this site, with 86 adults and children. Then in the spring of 1952 and the spring of 1953, several families moved back to Barter Island from Herschel Island, Canada, swelling the population to 140-145 (Kaveolook 1977).

The North Slope Borough publication: *Kaktovik, Alaska: An Overview of Relocations*, states:

The new village was along a slowly eroding section of beach and in the landing pattern of the airfield. Houses were rebuilt and new cellars dug and, fortunately, the village cemetery, located on the plateau behind the new site was not then in danger and left undisturbed.

The village was relocated again in 1953 because of changes in the DEW Line layout and new road construction. This move was accomplished in the same manner as the previous one, with the new site located further to the west and a little further back from the beach. This site was near where the main installation is now located and within a quarter-mile of the old cemetery (Nielson 1977b: 4-5).

(Note: The 1953 relocation was so close to the 1947 relocation, that they are considered the same site.)

Other than the cemetery, an old ice cellar and some scattered wood remains are virtually the only physical evidence at this old village site. However the area has been used so much by the DEW Line installation for storing equipment and supplies, etc., that it cannot be expected that much in the way of village evidence could remain here.

The cemetery is located on Air Force DEW Line property, and is nearly surrounded by the DEW Line installation and paraphernalia. There are 12 unmarked graves here, and the following marked ones:

Leffingwell Nipik Born December 23, 1908 Died July 9, 1929	(Old, worn wooden marker, barely readable; this may have been the son of Harlan Okomailuk)
John Apayauk Born August 20, 1935 Died April 3, 1954	(Grandson of the famed whaler of Barrow, Apayauk)
Edward T. Akootchook Born April 8, 1953 Died January 3, 1954	(Son of Isaac and Mary S. Akootchook)
Candace M. Brower Born October 31, 1957 Died August 29, 1958	(Daughter of Archie and Betty Brower)
Leonard Gordon Born December 3, 1956 Died January 31, 1959	(Son of Danny and Ethel Gordon)

Tommy Uĩñĩq Gordon, who moved to Kaktovik in 1953 from Herschel Island, remembers ice piling up so high along the bluff west of where the DEW Line site is located, that the ice actually rose over and covered the bluff. He has not seen it do that since. A similar occurrence took place in October 1933 at *Tapqauraq* and is described by Hutchinson (1937).

Village sources: Flossie Lampe, Nora Agiak, Harold Kaveolook, Perry Akootchook.

Qaaktuġvik-Kaktovik (Present location) — TLUI Site 22

Note: The North Slope Borough's publication, *Kaktovik, Alaska: An Overview of Relocations* (Nielson 1977b) includes a map of Kaktovik's various locations. It also contains more detailed information concerning acquisition of this present townsite.

Location: Northeast part of Barter Island, inside the small lagoon and southwest of the airport.

Meaning: Kaktovik means seining place.

Kaktovik has been at this location since 1964, when it was moved for health reasons and so that the Air Force could expand its facility onto the earlier site. As the result of at least four years of negotiations instigated by Kaktovik Village Council President Herman Rexford, Kaktovik teacher Harold Kaveolook, and Utkeagvik Presbyterian

Church missionary John R. Chambers, the village was able this time to get title to their village townsite. The village townsite plan was approved July 14, 1964. The village townsite was completed in August 1964, and officially filed in the Fairbanks District Land Office on November 14, 1966. However, the Air Force did not deed over the cemetery, which is still on Air Force land (see *Qaaktugvik second location*) (Kaveolook 1977; 1977b).

Kaktovik, Alaska: An Overview of Relocations, states:

The new village site was located on the East shore of the island facing Kaktovik Lagoon on 280.29 acres. The official name of "Kaktovik" was adopted and placed on the U.S. Post Office trailer. Again, the Air Force lent its equipment and, under the supervision of the BIA, the village was uprooted for the third time in less than twenty years and moved to its new site overlooking the lagoon, the airport and the Beaufort Sea beyond (Nielson 1977b:7).

Harold Kaveolook, Iñupiat teacher at Kaktovik for 18 years, describes this final village move this way:

... That fall the village had to move to the new site and all 16 houses were moved by the first part of September ... (1964) The village had to be moved. It was unhealthy to some of our people. Some of the crude houses of the families did not have foundations and were sitting on the ground and when the spring thaw came, at least three houses would be flooded and filled with water on the floors. We worked with John Melville, who was the sanitation supervisor working with the village Health Aides, and there was no finer man than John to work with. He made the move easier for us. It was good to see the village sitting on its own townsite. No threat of moving the village occurred anymore. For years the camp had spread all kinds of rumors that they will move the village somewhere and this caused unrest among the village people. That was one of the reasons to obtain a townsite for the village as a priority, but the most important reason was that the thawing made the original site unhealthy for our people. It was really the happy moment of the village to obtain its own townsite (Kaveolook 1977:15).

A new cemetery is located just to the southeast of the village, on the village townsite. At least four unmarked graves are located here, including the grave of Fred Gordon, who died in March 1977. The three marked graves are:

Forrest Linn	(Youngest son of Alfred Linn Sr.
Born December 1, 1961	and Ruby Okpiq Linn)
Died September 7, 1974	

Dorothy Panikpak Gordon
Born September 16, 1909
Died February 1, 1973

Riley Tikluk
Born May 29, 1935
Died October 17, 1976

Village sources: Harold Kaveolook, Flossie Lampe, Alice Faith Tikluk.

Pipsuk — Pipsuk Point — TLUI Site 23

Location: Northeast part of Barter Island, on the point across from the airport and just southeast of the present village site.

Meaning: Named after Pipsuk, grandson of Tigutaaq, a former longtime resident of this area (Hopson 1977).

Pipsuk's grave is located here. According to one legend, Pipsuk drowned here in the lagoon while fishing from a qayaq. His body was fished with a seining net, hence the name *Qaaktugvik* (Kaktovik), which means "seining place."

Pipsuk reportedly worked for the surveyor Leffingwell, and was the grandson of Tigutaaq, who used to live both in this area and in the Canning River delta area. Tigutaaq was the husband of Mary S. Akootchook's mother's sister, Julie Nasugilook. He was on the crew of the trading boat *Hazel* in 1933, when the botanist Isobel Hutchison made her trip from Pt. Barrow to Martin Point (Hutchison 1937: 139).

Pipsuk's grave is marked with an old wooden cross, the horizontal part of which bore the capital letters: PIPSUK. However, part of this cross has been broken off.



*Photo 39. The marker
at Pipsuk's grave
(M. Jacobson).*

A long time ago, around 1940, two Kaktovik girls dug up Pipsuk's grave (They were about twelve years old at the time). Working during the summer night of 24 hour daylight, after their parents were asleep, it took them three nights to dig it up. When they finally got the lid open, they saw what looked like a lady with very long hair and with beads around her neck. They were so scared that they immediately closed the lid and recovered the coffin with sod.

Village sources: Mary S. Akootchook, Perry Akootchook, Anonymous.

Qikiqtaq — Manning Point — “Drum Island” — TLUI Site 24

Location: Just east of Barter Island, between Kaktovik Lagoon and Jago Lagoon.

Meaning: Island.

This “island” is actually attached to the mainland by a narrow spit. Locally known as “Drum Island” because of the many discarded fuel drums in the vicinity, it is a heavily used spring and summer camping area. Its main use is for migratory bird hunting from mid-May to mid-June. Caribou are also hunted from here in late spring and summer. People camp both on the point and on the mainland opposite.

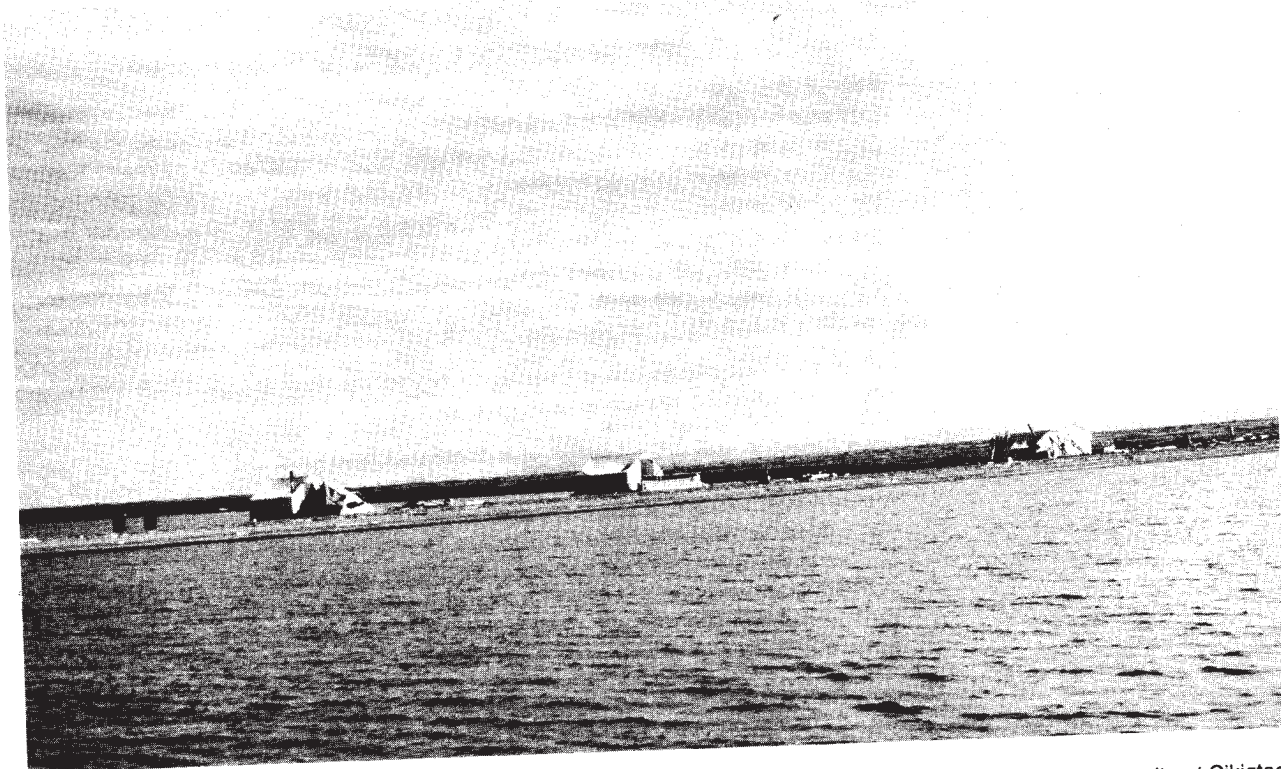


Photo 40. The campsite at Qikiqtaq
— "Drum Island" (M. Jacobson).

One summer in the late 1940's, *Qikiqtaq* was used to herd a large group of caribou into the water where they could be killed from waiting boats. Some women and children were standing on "Drum Island" as the men drove the caribou onto it from the mainland. At one point the herd was coming right at the women. One woman took off her jacket and swung it round and round over her head, which luckily caused the caribou to veer off into the water.

Village sources: Georgianna Tikluk, Archie Brower, Mary Ann Warden.

Tapkak — Bernard Spit — TLUI Site 25

Location: Bernard Spit is actually a barrier island just northeast of Barter Island.

Meaning: Spit

The Andrew and Susie Akootchook family had a house on the western part of Bernard Spit, due north of what is now the Barter Island landing strip. They lived here off and on between the mid 1920's and the mid 1940's. Their daughter Elizabeth Akootchook Frantz was born here on October 22, 1929.

Village sources: Mildred Sikatuak Rexford, Perry Akootchook

Tapqauraq — Martin Point and Tapkaurak Spit — TLUI Site 26

Location: The area referred to as *Tapqauraq* is just to the east of the Jago River delta, about 10 miles east of Barter Island. Tapkaurak Spit extends from Martin Pt. southeast almost to Griffin Pt. Ruins are near the point across from Tapkaurak Entrance, and on the widest portion of the spit.

Meaning: Tapqauraq means "little narrow spit."

Census: US BIA 1938: 15 people; U.S. Census 1939: 18 people.

The small island (denoted by the word "ruins" on USGS maps) in Tapkaurak Lagoon just east of Martin Point is the site of (the late) Dan Gordon's old house. He was one of the sons of Tom and Agiak Gordon and brother and uncle to many Kaktovik residents (Hopson as cited in Nielson 1977b). This island has been a good location for finding waterfowl and gull eggs. The water in this area is too shallow for boating except quite close to the island. "Tapkaurak Point" on the USGS map is actually called "Nuyagiq" by Kaktovik people. Mable Nuyagiq and her husband Russell Kalayuak used to live here, and the point is named after her. (They adopted Fred Gordon's oldest daughter, Martha Leavitt).

When Kaktovik people talk about *Tapqauraq* today, they are generally referring to the house ruins on Tapkaurak Spit (Fig. 4)

On Tapkaurak Spit are the ruins of a cabin that belonged to the trader Gus Masik, and a driftwood and sod house that was the home of Bruce and Jenny Nukaparuk. Much insight into the life at Tapkaurak Spit in the 1930's is given in Isobel Hutchinson's book *North to the Rime-Ringed Sun*. Hutchinson spent six weeks here at Tapqauraq in the fall of 1933. As a guest at the trader Gus Masik's cabin, she was able to observe first-hand the lives and comings and goings of the Inupiat in the region. Her recorded observations about these ancestors of present day Kaktovik residents reinforce their own oral accounts of their lifestyles during the 1930's.

Hutchinson travelled to Tapkaurak Spit via Gus Masik's schooner *Hazel*, arriving at Masik's house on Sept. 15, 1933. The Presbyterian elder Nijjuk, who worked on the *Hazel*, was with them. She describes rounding the long narrow sandspit and entering a lagoon about a mile wide, which divided the spit from the mainland:

"We anchored off the flat sandy shore, on which stood the ruins of an old native house, one little Eskimo hut made of driftwood, and the quaint 'round house' of wood, turf, and canvas which was Gus's trading post" (Hutchinson 1937: 149).

They were greeted by a chorus of dogs, and by Bruce Nukaparuk, who lived in the driftwood hut. He was very glad to see them because his wife Jenny and their four children were on a visit to Barter Island and he had been alone for some time. (Jenny was the sister of Mrs. Charlie Gordon, who was Tom Gordon's daughter-in-law) (Ibid: 149, 157).

Gus Masik was of Estonian origin, and spoke both Estonian and Russian. He had been a member of the Canadian Arctic Expedition under Vilhjalmur Stefansson, and in 1918 had been second in command of a party of five who drifted for 184 days on Beaufort Sea ice to discover its movement. He was familiar with the Arctic Siberian coast from East Cape to Kolyma River, and was a well-travelled dog musher, having travelled over 25,000 miles with dogs. (Hutchinson 1937: 140)

Gus's house at *Tapqauraq* was built of logs and "warmly banked with turf . . . it consisted of a single room lighted by two skylights, and was approached by a canvas-covered entry and storehouse with wooden compartments for the four dogs" (Ibid: 151-152). Later, Hutchinson bought some articles from Gus's trading post to use as part-payment for the fur clothing that Mrs. Arey was making for her (See *Pukak* site description). These included white woolen undergarments, three-cornered needles for sewing skins, calico material, and tobacco (Ibid: 164).

On September 19, a few days after Hutchinson's arrival at *Tapqauraq*, Gus Masik and Bruce Nukaparuk went out to hunt seal for dog feed. But the sea outside the lagoon was already so frozen that they had great difficulty pushing the boat out through the ice with the motor. Finding no seal, they returned home early. However,

the lagoon was still ice-free, so Masik took "old Nirjiuk" over to the mainland by boat, and he walked several miles eastward to his home on the coast. (Ibid: 156).

Hutchinson's book contains a painting of the Nukaparuk house; a photograph of Nukaparuk, Nirjiuk, and Masik; and a photograph of Masik next to his house and dog team. (Ibid: 148, 152, 168).

Between September 15 and November 1, which was the duration of Hutchinson's stay at *Tapqauraq*, several Inupiat made trading visits to Masik's post. On the morning of October 10, George Agiak arrived from Barter Island by dog team. He had managed, at considerable risk, to cross from the west. (At this time of year, the ice is just forming on the rivers and lagoons). He had tea and spent a few dollars in trade, but had no fox skins to trade because these were scarce in 1933. The second visitors, Homer Mekiana (now of Anaktuvak Pass) and a friend, arrived on October 14, also from Barter Island. Hutchinson describes Homer as "stout and jolly." They were scarcely seated when Joe Arey arrived from the east.

On October 30, *Tapqauraq* had more visitors, this time from the mountains:

All the next day the wind blew a blizzard again, but on the 30th of October it cleared and two young lads arrived from the mountains with mountain sheep meat to sell. Gus bought a carcass for twelve dollars, as I was very anxious to taste the meat. The two lads who brought the meat were intelligent fellows, and were much interested in my pictures of Greenland and in an Eskimo book which I had with me (Mr. George Binney's *Eskimo Book of Knowledge*), sitting pouring over its pictures for nearly an hour. They were also able to tell me a little of conditions farther east, and of the Anglican mission at Shingle Pt., which I would pass in my journey from Herschel to Aklavik . . . (Ibid: 168).

Then on November 1, Paul Kayutak's two sons stopped by *Tapqauraq* on their way from Barter Island to their home at *Piguqsraluk*. They came in for a meal and to warm up, and were going to spend the night at Mrs. Arey's house at *Pukak*. (Ibid: 169).

In addition to these observations concerning the people of the region, Hutchinson had some remarks about the natural phenomena she observed at *Tapqauraq*. She tells about a "blizzard of great violence" which hit on the 18th and 19th of October and left a large pressure ridge: "The north side of our sandspit island presented an astonishing spectacle, being piled with great square blocks of ice — the 'pressure ridge' of ocean ice — which was crushed up to a height of 20 feet or more all along the outside of the spit." (Ibid :164-165).

She points out how it is Canada's river, the "Mother Mackenzie," that provides the driftwood which supports human life all along the Alaskan Beaufort seacoast — for Native and trader alike. She gives examples of the many different uses to which this driftwood is put — not only for Gus Masik's heating, but for his house and furniture: "Without the Mackenzie, indeed, life in these regions would be impossible" she states. (Ibid :170).

Tommy Uinñiq Gordon is very familiar with the area of *Tapqauraq*, as when he was a boy, he and his family lived in Masik's house here for one year, while Masik was away.

Fred Klerekoper, in his published diary, also mentions stopping here at Gus Masik's place on April 21, 1937.

Village sources: Tommy Uinñiq Gordon, Frances Lampe, Archie K. Brower.

Uqsruqtalik — Griffin Point — TLUI Site 27

Location: On the east side of Orukhtalik Lagoon, between the Jago and Aichilik Rivers, about 20 miles east of Barter Island.

Meaning: "Place where there is oil on top of the ground."

Uqsruqtalik is one of Kaktovik's main and most popular summer camps. It is the site of an old village, which was in existence in 1918 when Hudson Stuck and his party stopped here. Stuck mentions stopping briefly at this village and shaking hands, before travelling on to *Angun* for the night.

John Olsen's trading post was originally here at *Uqsruqtalik*. He was a Norwegian trapper who later became a good friend of Tommy Uinñiq Gordon. He had also been a partner with Gus Masik on several expeditions. (Hutchinson 1937).

Isobel Hutchinson visited Olsen here on October 17, 1933, on her way back from visiting Mrs. Arey at *Pukak*. She was served coffee, and canned peaches and cheese from his store. Near the end of October, Olsen came to *Tapqauraq* and accompanied Hutchinson and Charlie Gordon to *Iglukpaluk* (Ibid 1937).

Hutchinson also mentions that John Olsen was planning to take his dog team to the hills when the trapping season began on the 15th of November.

Sometime between 1933 and 1937, Olsen moved his post over to *Imaignaurak*. This was about when Fred Gordon, son of Tom and Agiak Gordon, started living at *Uqsruqtalik* full time. Before this, Fred had used *Uqsruqtalik* for a fish camp. He used to walk to Barter Island in the summer, to buy flour and other supplies. Fred got his house at *Uqsruqtalik* from Irving Singatuk, who had moved to *Pukak*. Fred lived at *Uqsruqtalik* with his wife Dorothy Panikpak for many years and they raised their family here. Two of their children were born here: Frances Lampe on April 15, 1940 and Thomas K. Gordon on September 27, 1943. Fred and Dorothy continued to return to their house here into the 1970's, even though they moved to Barter Island in the mid-1940's. Dorothy and Fred's children and grandchildren and other Kaktovik people go to *Uqsruqtalik* during July and August. They camp across the lagoon from Fred and Dorothy's house. Their stays may last for up to two months, returning to Kaktovik only long enough to get mail and supplies. Some permanent tent frames have been built out of lumber and driftwood, so only the canvas needs to be put up and taken down each summer. In addition, Fred and Dorothy's house is still used as a shelter cabin.

At *Uqsruqtalik*, people fish for arctic char (iqalukpik) and arctic cisco (qaaktaq), and hunt seal, ugruk, and caribou. *Uqsruqtalik* is also a good place for hunting brant during August. Occasionally, a brown bear or a polar bear may be taken. The area south of *Uqsruqtalik*, around the Niguanak River, Niguanak uplands, and Jago River is an important caribou and squirrel hunting area. The word Niguanak means "place where one waits for some animals to come."

Village sources: Georgianna Tikluk, Frances Lampe, Danny Gordon, Tommy Uinñiq Gordon, Archie Brower.

Pukak — TLUI Site 28

Location: *Pukak* is the area around Pokok Lagoon and Pokok Creek (the latter are USGS map spellings), on the coast a few miles to the east of *Uqsruqtalik* or Griffin Pt. The site *Pukak* should not be confused with Pokok Bay on the USGS maps, which is farther east; it is actually Humphrey Bay.

Meaning: *Pukak* was the name of a village once located on the east end of Pukak Lagoon.

This present day spring and summer camp used by Kaktovik people is near the site of an historic, and perhaps prehistoric, Eskimo village. "The Eskimo name 'Pokang' is shown in this area on John Simpson's native map, 1853, as the farthest point seen by the Point Barrow natives" (Orth 1967).

Irving and Martha Singatuk and family used to live at Pukak. (Their daughter Hope is the wife of Alec Gordon of Iñuvik, N.W.T., the brother and uncle of Kaktovik residents. Their son Leffingwell lives at the Bar I DEW Line Site in Canada).

The Areys also used to live at Pukak. Mrs. Arey, or Ekayauk, came down to her house here from her tent in the mountains so she could make a reindeer skin parka for Isobel Hutchinson. Hutchinson, who describes Mrs. Arey as "a clever seamstress like most Eskimo women," visited here twice in late October to have the parka fitted, and Martha Singatuk helped make the parka hood. Leffingwell Singatuk was off hunting in the mountains at the time. In addition to making the parka, Ekayauk gave Hutchinson a silver lemming skin, and "two brant geese for the pot" . . . The children also brought her "the body of a small brown bird (perhaps a 'kinglet') with a blood-red crest, found frozen by the door — a little explorer from Yukon forests evidently blown far out of its course by the blizzard, to perish in the frozen north. The natives said they had not seen such a bird before . . ." (Hutchinson 1937:164).

Paul Kayutak and family moved here to Pukak from Piguqsraluk in about 1934, and built a house. Kayutak's wife Mae Suapak was the daughter of Mrs. Ned Arey. Kayutak's daughter Annie Soplu lives in Kaktovik; their other daughter, Teva Gordon, lives in Iñuvik.

Now people travel to Pukak every spring to camp and hunt waterfowl. Brant, eider ducks and snow geese are the main species taken. Parka squirrels and an occasional seal may also be hunted. Commonly, people may leave a tent set up at Pukak when they return to Barter Island by snowmachine in the late spring. Then they return to Pukak by boat in early July, after the ice has gone out. This is often a prime time for caribou, seal and ugruk hunting, as well as arctic char fishing. In the summertime, the caribou come out on the sandpits by Pukak, to escape the insects. In late August, 1978, two beluga whales were taken at Pukak, and a whole school of them could be seen.

Village sources: Herman Aishanna, Danny Gordon, Tommy Uinñiq Gordon, Annie Soplu.

Imaignaurak — Humphrey Point — TLUI Site 29

Location: At the base of the small spit on the west side of what is labelled Pukak Bay, at the location marked "cabin" on the USGS map.

Meaning: "Place of new sod houses."

Census: US BIA 1938: 10 people; U.S. Census 1939: 24 people.

Two mistakes were made when the U.S. Coast and Geodetic Survey mapped this area about 1950. What appears on the map as "Pokok Bay" should actually be "Humphrey Bay." "Humphrey Point" is actually here at *Imaignaurak* rather than on the east side of the bay.

The trader Jack Smith spent the winter of 1923-24 here after unsuccessfully trying to go over to Canada to buy furs.

This is where John Olsen, a Norwegian trader, had his trading post after he moved it from Griffin Pt. In June after the ice broke up, Tommy Uinñiq Gordon would fish with Olsen at Pokok (Humphrey) Bay and they'd put up the fish in the ice cellar at this site.

Olsen ran a "business" of buying fish and seal from people, storing it, and then selling it back to them at the same price he paid them for it. He did this to help people out. For example, in the summer he would buy five gallons of seal blubber from Uinñiq for \$2.50, and fish for five cents a piece. Then Uinñiq would buy it back in the winter, for the same price. Uinñiq also sold and bought seal meat from him in the same manner. The only things Olsen made money on were the white fox that he bought and sold, and the fish that he caught himself.

Fred Klerekoper and Roy Ahmaogak apparently visited this site in April 1937. Klerekoper mentions spending the night at John Olsen's trading post in his published diary. A picture of Olsen with his fox skins and a polar bear hide, is on page 16 of the diary (Klerekoper 1937:11,16). The polar bear hide shown is probably from a bear shot by Tommy Uinñiq Gordon. Uinñiq used to sell his polar bear hides for about ten dollars a foot.

John Olsen died here of pneumonia in the fall of 1942. He had gone to Barrow that year and bought a boat, and died not too long after his return. He was probably around 60 years old when he died.

The Fred and Dorothy Gordon family have a long history of use of this site, and it is still a hunting, fishing, and stopover place for Kaktovik people. *Emanunaruk* is the name of the dry lake just south of this site.

Village sources: Levi Griest, Tommy Uinñiq Gordon, Betty Brower, Archie Brower, Danny Gordon.

Iglugruatchiat — TLUI Site 30

Location: On the coast between the Jago and Aichilik Rivers, at the point between Pukak (Humphrey) Bay and Angun Lagoon.

Meaning: This point of land, called Iglugruatchiat by the Iñupiat, is incorrectly labelled "Humphrey Pt." on the USGS map. Humphrey Pt. is actually on the west side of Pokok (Humphrey) Bay. See notes for *Imaignaurak*.

Village sources: Betty Gordon Brower, Archie Brower.

Angun — TLUI Site 31

Location: On the coast between the Jago and Aichilik Rivers, between Angun Lagoon and Beaufort Lagoon.

Meaning: Oil seep.

Census: US BIA 1938: six people

Hudson Stuck and his party stayed one night at the native village of Angun, in April 1918. Here is his description:

Here were none but two old women and some children (the men had gone to Demarcation Point to traffic with the trader there), and they were most kind and helpful. They pulled off our fur boots for us, turned them inside out and hung them up to dry (an attention that is part of the hospitality at every genuine Eskimo dwelling, and almost corresponds to the water for washing the feet of the East); they helped to cook dog-feed and insisted on washing our dishes after supper. Then they sought our gear over to find if any mending were needed, and their needles and sinew thread were soon busy. Nothing could be more solicitous and

motherly than the conduct of these two old women, and when I gave them each a little tin box of 100 compressed tea tablets, having first proved to them that one tablet could really make a good cup of tea, they were so pleased that they danced about the floor (Stuck 1920: 308).

Angun is best known to Kaktovik people as the site of an oil seepage, which they call pitch. The oil was formerly used as heating fuel, because all the wood around this site was wet. In the winter this "pitch" is brittle and can be chipped off; but in summer it is soft, some areas are like quicksand. In fact, caribou and birds have been caught in it, getting sucked in and never coming out again. Both Tommy Uiññiq Gordon, who lived at Demarcation Bay, and Betty Gordon Brower, who lived at Griffin Pt., used to come and get this fuel to burn in their stoves. However, it was extremely sooty and had a strong odor. According to Uiññiq, it would be impractical as a fuel source today because one would have to be constantly washing the floor, and the outside of one's house would turn black. They used to be able to smell the smoke from this fuel ten miles away.

Angun had a shelter cabin where Tommy Uiññiq Gordon would spend the second night on the three-day, 60 mile trip from Demarcation Bay to Barter Island.

Village sources: Tommy Uiññiq Gordon, Betty Gordon Brower.

Nuvagapak — Nuvagapak Point — TLUI Site 32

Location: This point was mislabelled on the USGS map as being at the VABM site and airport. Actually *Nuvagapak* is the larger point of land to the northwest, between the VABM site and *Angun* (Angun Pt.)

Meaning: Big point.

Unidentified house ruins are at this site.

Village sources: Archie Brower.

Atchilik — TLUI Site 33

Location: On the west side of the delta of the Aichilik River, near the lake.

Meaning:

Census: US BIA 1938: four people.

Old ruins are at this site, and it is a former and present camping and fishing area for Kaktovik residents. Some consider it the best river for grayling within their present land use area.

In November 1933, when Isobel Hutchinson was travelling by dog team with Gus Masik from Martin Pt. to Herschel Island, they stopped here at the "cluster of ruined houses." They spent the night here in a cabin which had been occupied by Gus Masik's former trading partner, Harry Knudson (Hutchinson 1937:174-175).

Village sources: Danny Gordon, George and Nora Agiak.

Siku — Icy Reef — TLUI Site 34

Location: On the reef, near the delta of the western mouth of the Kongakut River.

Meaning: Siku means "ice."

Census: US BIA 1938: 11 people

This is an old and probably prehistoric village site. In August 1849, the explorer N.A. Hooper observed two boats and several huts here (Nielson 1977a:29).

The explorer and former commercial whaler Ned Arey, grandfather of Annie Soplu of Kaktovik, was living here in his cabin with his family when Hudson Stuck and his party stopped for lunch in April 1918. Stuck describes Arey as a very modest, intelligent man full of information of the country and of recent explorations. Stuck provides a glimpse of the Arey's life here:

... A big pan of tender caribou meat was immediately set cooking in the oven and the table was soon spread with a fine meal to which we did full justice. After many years' whaling, Arey began prospecting for placer gold on the mountains behind this coast, and for ten years pursued his search from the Colville River to Barter Island without finding anything that he thought worthwhile. He now occupies himself with trapping and has a grown married son who is a mighty caribou hunter and trapper, besides a number of younger children, so that the establishment has something of a patriarchal air. We were told that his son's — Gallagher Arey's — catch of foxes was the largest of the whole coast, going well above 100. (Stuck 1920:309).

Siku is the birthplace of Tommy Uin̄ñiq Gordon, son of Mickey and Rosie Piyuulak Gordon, and a present-day Kaktovik resident. He was born here in April 1921. The site still has a marker (which looks like a small telephone pole) and two old houses, including one that belonged to Uin̄ñiq's father Mickey. Uin̄ñiq used to camp here on the first night of the three day, 60 mile trip from Demarcation Bay to Barter Island.

Residents at *Siku* during the 1930's included Taktuk and his family, and Paul Kayutak and his family, who were living here in April 1937 when Fred Klerekoper and Roy Ahmaogak visited. A picture of these residents at *Siku* is in Klerekoper's diary (see page 14, top; the picture captions on page 14 and 15 should be reversed.). Taktuk, the father of the late Neil Allen of Nuiqsut, is at the extreme left. Mae Titus, Neil Allen's sister, is third from left. She is the hunchbacked girl that Klerekoper refers to. She lived with Paul Kayutak and his family, and now lives in Anchorage. Paul Kayutak was the father of Annie Soplu, now of Kaktovik, and Teva Gordon, now of Inuvik, N.W.T.

The small delta of the Kongakut River just south of *Siku* is an important fishing area for whitefish (iqalukpik). Historically, the Kongakut River was one of the main travel routes into the mountains for hunting sheep, caribou, and small game, and for trapping and fishing.

Village sources: Tommy Uin̄ñiq Gordon

Pijuqsraluk — TLUI Site 35

Location: On the coast just to the northwest of Demarcation Bay, on the west side of the large creek. Between "Pingokraluk Lagoon" and "Pingokraluk Pt." on the USGS map.

Meaning: Place where there are Pingos. *Pigu* means mounds or sand dunes by the rivers and river deltas.

Census: US BIA 1938: 15 people.

In 1929, Tommy Uiññiq Gordon's father Mickey bought a house at *Piguqsraluk* for \$200, plus \$50 for the things inside. He bought it from Joe Arey, son of the whaler Ned Arey. They lived there until 1933. The house was originally built by a white man named "Old Man Store." Another old house at *Piguqsraluk* belonged to Ed Arey, the half brother of Joe Arey. He gave his house to Tommy Uiññiq Gordon when he (Ed) moved to Herschel Island in 1941. Joe Arey's grave is located at *Piguqsraluk*.

Putugook, an excellent trapper, moved here from *Kanigluaqpiat*, in about 1931. Then about two years later he moved to *Siku*.

Isobel Hutchinson stopped at a group of cabins here in November, 1933, when the trader Gus Masik took her by dog team from Martin Pt. to Herschel Island. Among those living here were the Mickey Gordon family and the Kayutak family. Hutchinson and Masik visited at Mickey Gordon's home and the family welcomed them (Mickey was at Barter Island visiting at the time). They offered them some of the reindeer stew that was simmering in a pot on the stove, but Hutchinson and Masik declined. Hutchinson wrote: "The laws of Eskimo hospitality give the stranger access to his house and larder even should there be scarcely enough to feed the host's own family" (Hutchinson 1937:176).

Fred Klerekoper and Roy Ahmaogak stopped at Ed Arey's house at *Piguqsraluk* twice in April 1937. On the trip east, a boy put a small seal on their sled for dog feed. On the trip west, Klerekoper baptized two of Ed's children (Klerekoper 1937:11,15)

The remains of several structures are still visible at *Piguqsrluk*: three houses are still standing. Tommy Uiññiq Gordon's house is the one that is leaning due to beach erosion.

Photo 41. One of the old houses at *Piguqsraluk* (M. Jacobson).



A small graveyard is south of the houses. Although letters are barely visible on the wooden markers, the following names and dates could be made out:

Hit Arey Alonik,
Died January 2, 1922;

Annie 1918;

Joe Arey
Died May 15, 1936

(Joe Arey starved to death in the mountains and was brought and buried here. See Appendix 4: Tommy Uiññiq Gordon.)

Both the names Alonik and Annie are written with reverse n's. Lawrence Malegana is also buried here.

Village sources: Tommy Uiññiq Gordon

Kuvluuraq — TLUI Site 36

Location: On the end of Icy Reef, on the spit on the west side of Demarcation Bay. Marked on the USGS map as "Kuluruak (Site)."

Meaning: "A small thumb located in the spit."

This was where Loren Apayauk had a house. He built the house in the summertime, and then went off to get some caribou. But when he came back, the spit the house was on had turned into an island and he could not even get to his house. So he built another one at *Demarcation Bay — West Side*. Apayauk was one of the reindeer herders present at Barter Island when Frank Daugherty, the Local Reindeer Superintendent from Barrow, visited there on April 17, 1937 (Bureau of Indian Affairs 1938).

Lawrence Malegana built a house here at *Kuvluuraq* because of the good supply of firewood here . . . he was tired of hauling wood so far to his mainland house (See *Demarcation Bay — West Side*). However, he died just before freeze-up and never did live in this new house. His grave is at *Pinuqsraluk*.

It is felt this may have been a poor site for a house because of the lack of fresh water.

Village sources: Tommy Uiññiq Gordon.

Demarcation Bay — West Side — TLUI Site 37

Location: On the west side of Demarcation Bay, at the head of the Bay.

A grave may be present, that of Loren Apayauk who used to live here. He built a house here after he was unable to reach his house at *Kuvluuraq* (see *Kuvluuraq*). He was one of the reindeer herders present at Barter Island when Frank Daugherty, the Local Reindeer Superintendent from Barrow, visited there on April 17, 1937 (US BIA 1938).

Paul Kayutak used to live at this site, and Lawrence Malegana had a house here. He had a wife and four or five children (including Johnny, Rebecca, Dorcas and Leah). He could read and write for local reindeer herders. He also would draw the different marks for reindeer ears that were used to show ownership.

Village sources: Tommy Uiññiq Gordon, George Agiak.

Old Man Store — TLUI Site 38

Location: At Demarcation Bay, about 1.5 miles east of the mouth of the Turner River.

This is where Old Man Store's cabin was located. It was probably built in 1916 (Hopson 1977 as cited in Nielson 1977a). An acquaintance of Tommy Uinñiq Gordon, Old Man Store was a white man who was never known by any other name. He used to feed Uinñiq boiled caribou meat. He may have been a whaler from Herschel Island. He died at this location in 1928 or 1929. Sometime after he died, Uinñiq cleaned up his ice house here and began using it as his own.

Village sources: Tommy Uinñiq Gordon

Kanigluapiat — TLUI Site 39

Location: Demarcation Bay, by the small lake where Kagiluak Creek flows into the Bay.

Meaning: "The group of people way over at the farthest place" (i.e. over towards the Canadian border).

This is where Putugook lived, until about 1931. The creek near here is named for him on the USGS map. Putugook (his name means "Big Toe") was a fine trapper, he was especially good at getting wolves. He could howl like a wolf and knew how to attract them. He went to Barrow about 1943, and died the following year of influenza after a severe windstorm. His daughter, Alice Makalik (Putugook) used to live at Kaktovik and is well-known to Kaktovik people. She died in Fairbanks in the spring of 1979.

Pattaktug — Gordon — TLUI Site 40

Location: On the east side of Demarcation Bay, at the base of the spit.

Meaning: *Pattaktug* means "where the waves splash, hitting again and again." *Gordon* is named after the Scottish whaler and trader Tom Gordon, who established a trading post here in 1917.

Census: US BIA 1938: 12 people; U.S. Census 1939: 25 people.

Tom Gordon established a trading post here in the summer of 1917, with the help of his brother-in-law Andrew Akootchook. They built a log house and warehouse, an outpost for the H. Liebes and Company of San Francisco. The Akootchook family lived here with the Gordon family for about three years before the Akootchooks moved to Barter Island.

Nora Agiak, daughter of Tom and Agiak Gordon, was about six years old when they first moved to Demarcation from Barrow. She remembers that between 1918 and 1922, Indians used to visit them here at Demarcation. They always used to talk about Fort Yukon, but she's not sure if that's where they were from. Nora's family would know when the Indians were approaching, because they would shoot three times as a warning. Then the Gordons would answer back with three shots, signalling that it was all right for them to come. They visited once in January or February, and another time in August, when they came to meet the fur trading ship. When they came in August, Nora remembers them walking around in the water with their moccasins, and then trading their moccasins for sealskin mukluks. They would always try to trade their wolverine skins and their dry meat. Their dry meat was very good as it was made from fat caribou. These Indians already knew the older Eskimos that were living around Demarcation Point. They were friendly, and did not try to steal anything or hurt anyone.

Episcopal Archdeacon Hudson Stuck and his party visited the trading post here the year after it was established. Stuck's Iñupiaq guide George Leavitt helped give a religious service at the Tom Gordon family's home. A lengthy description of this 1918 site visit is contained in Stuck's *A Winter Circuit of Our Arctic Coast*:

That night, the 3rd April, we reached Tom Gordon's trading station near Demarcation Point, four or five miles within Alaskan territory. This new station is an outpost of the same San Francisco fur house that Mr. Brower represents at Point Barrow, and they have yet another east of Herschel Island. Mr. Gordon was for a number of years resident and trading at Point Barrow, and this was his first season here. A warehouse and a combined store and dwelling, still unfinished, rose stark from the sandspit, in the style that commerce knows not how to vary from the Gulf of Mexico to the Arctic Ocean.

The place was swarming with natives, come hither from the inland rivers and mountains for the spring trading, and since there was nowhere else to stay they stayed at the store. Gordon seemed to keep open house for them, there was cooking and eating going on all the time. Which was his own family, I never really distinguished amongst the numbers of women and children who all seemed equally at home. Several of the women wore no garments save fur trousers and a woolen shirt with two large holes cut in it for their naked breasts, that their children might apply themselves thereunto with greater facility.

Tom Gordon, I found a man of the extreme good nature and hospitable generosity that this state of things would imply. I had difficulty in doing business with him at all.

Stuck goes on to say that Tom Gordon was so excited to get the mail they had brought him — the first he had received in seven months — that he wanted to give them all the trade goods that George Leavitt would need for his return trip to Barrow and would not take payment for anything. When Stuck threatened to buy the goods at Herschel Island instead, Gordon finally relented and let Stuck pay him.

Crowded beyond all comfort as the place was, it rejoiced me that the people were here, for they were, mostly, of the roving, inland Eskimo bands of the Turner, the Barter, the Hulahula and the Canning rivers, that are very hard to visit and that we should otherwise not have seen at all — as we did not see any of the Colville, Kupowra or Sawanukto people. The north coast, in the main, affords no winter subsistence comparable with that of the west coast; the ice commonly holds fast too far off shore for sealing; and the inhabitants resort to the mountainous inland country still frequented by herds of caribou.

When I had vainly waited a long time to see if the relay cooking and eating would come to a natural term, Mr. Gordon advised me to "pitch right in and talk," and with George as the best interpreter available I spoke to them.

Stuck describes giving an Easter week sermon and he and Leavitt leading a hymn from the Pt. Barrow book. The people "stopped their cooking and eating and washing dishes and listened with the keenest attention."

Stuck and his party spent the night at Gordon's trading post, and Stuck mentions that the floor of both the store and the dwelling were covered with sleeping forms because many other people were also staying there. He explains that Demarcation would be a good site for establishing a mission because so many Eskimos came there. However, establishing a new Alaskan mission would help the business of the San Francisco furriers at the expense of the Hudson's Bay Company at Herschel Island, and would cause competition between the Alaskan and Canadian missions. He recommended instead that Demarcation become a branch mission of the Anglican church at Herschel Island.

The Akootchooks' son Perry was born at *Pattaktuq* on November 22, 1918, and Tom and Agiak Gordon's youngest child, Olive, was born here on December 28, 1922. The next year, 1923, the Tom Gordon family moved to Barter Island and Gordon started the trading post at *Iglukpaluk*.

After Tom left, he gave the Demarcation Bay establishment to his son Mickey. Mickey continued to run it as a trading post until the late 1920's. He and his family lived here off and on until the early 1940's, and when Mickey died in 1943 ownership of the house passed to Mickey's son Tommy Uinñiq.

When Isobel Hutchinson and Gus Masik passed by *Pattaktuq* on their journey to Herschel Island in November 1933, the trading post building was deserted, as the Mickey Gordon family was living at *Pinuqsruluk*. Hutchinson also mentions two other empty houses here. One belonged to a native named Frank, and this is where her party spent the night (Hutchinson 1937).

Other families who lived at or near *Pattaktuq* in the 1920's and 1930's were the Ikpiaruks, the Nukaparuks, and the Kayutaks, Niel Allen's father, and a white man named Charlie Lou. Lou is remembered by Tommy Uinñiq Gordon as "living off the country." Uinñiq never knew Charlie Lou, but he remembers being carried to Charlie Lou's house on his mother's back.

In the 1940's, while Uinñiq was living at Herschel Island, some surveyors moved into his house at *Pattaktuq* without his permission. They installed an oil stove, and they took some of his valuable things — a piece of mastodon tusk, as well as the spears and arrowheads which he had found (Appendix 4: Tommy Uinñiq Gordon).

In the 1950's, DEW Line construction began in the Demarcation area. Uinñiq lost the old trading post house at *Pattaktuq* because the DEW Line hauled too much gravel from the spit, causing the house to be washed away.

As evidenced by the number of sites, Demarcation Bay was and is a good fishing and hunting area. People hunted ducks in and around the Bay, especially oldsquaw (aaqhaaliqs). They hunted caribou around the bay and several miles inland. They also fished all along the spit extending out from *Pattaktuq*. They hunted polar bear by going due north from *Pattaktuq* and sheep by going south up the Kongakut River. Demarcation Bay is still used as a camping, hunting and fishing area, and as a stopover place when Kaktovik people are making boat trips to visit friends and relatives in Canada.

Village sources: Tommy Uinñiq Gordon, Nora Agiak, Olive Gordon Anderson, Mildred Sikatuak Rexford, Perry Akootchook.

APPENDIX 4

Individual Histories and Residence Chronologies

Note: Credit is given the North Slope Borough for permission to reprint the following chronologies of selected Kaktovik residents. Prepared by Cynthia Wentworth for the Borough's Mid Beaufort Sea Coastal Zone Management Plan (Wentworth 1979b), this material was later published in Qiñiqtuagaksrat Utuqqanaat Iñuuniagninsiqun: Traditional Land Use Inventory for the Mid-Beaufort Sea (North Slope Borough 1980). Mike Jacobson co-authored the Tommy Uinñiq Gordon chronology, and Jane Akootchook Thompson co-authored the chronology on the Panningona sisters, Mary Sirak Akootchook and Josephine Iqagin Itta.

George and Nora Agiak

George Agiak (birth until marriage in 1931): George was born on Christmas Eve 1909, in Barrow. His mother's name was Tuuluk. She was a sister of Richmond Ologak, Susie Tigiklook, and Paul Patkotak, who were all children of Adam Alasuuraq and Eve Kignak. George's father, who was also named George Agiak, died before the younger George was born; that is why George is named after him. His mother remarried and his stepfather's name was Angik.

George lived at Wainright until he was about twelve years old. He had four older sisters: Hazel, Isabel Ahmaogak, Flossie Connery, and Evelyn Nashaknik. Flossie was a schoolteacher for many years in Barrow and other villages along the coast, and died a few years ago in Seattle. Evelyn, who is two years older than George, is still living in Barrow (Appendix 1, Genealogy).

In 1921 Agiak and his family travelled to Banks Island, Canada on the two-masted schooner *Lydia*, owned by Jim Crawford. They went there to trap, but when they arrived the Canadian government would not let them. Later, in 1923, the trader Jack Smith tried to take several families to Banks Island to trap for him, but the Canadian government stopped them at the border (North Slope Borough 1980: 141). Agiak and his family stayed at Bank Island for one year, subsisting solely on a hunting and fishing economy. Some old houses and a warehouse belonging to Jim Crawford were on the island. Food had been left by the Danish Thule Expedition, but it was rotten. There was almost no wood in the area, so people were burning boards from the old houses and the warehouse to keep warm. Agiak's family actually stayed much of the time on the mainland across from Banks Island, at Cape Killit Point.

When Agiak was at Cape Peary with his family, he saw Knut Rasmussen who talked to him in Eskimo. Agiak remembers his blond hair. Rasmussen was coming from Greenland, on his way to the Alaskan Arctic.

When the schooner *Lydia* got back to Wainright the summer of 1922, the owners unsuccessfully tried to sell it to the Eskimos for \$50. They kept telling them it was a good deal. But the Eskimos were suspicious because the price was so cheap. Sure enough, even though the engine was good, the hulk was rotten and the boat sank a month later. This became a good joke among the Eskimos.

Agiak's stepfather Anjik and his mother Tuuluk had a residence at *Siktaqtitaq* (MB 31) on the west side of Prudhoe Bay. George used to travel from there over to the Colville River to fish. One time, before he was married, he caught about 2,000 fish at the Colville.

In 1927 or 1928, Agiak was on the crew of the well-known whaling captain Taaqpak when they got a bowhead whale near Cross Island. Taaqpak had a new boat, which he had gotten from Captain C.T. Pederson, who used to run a fur trading schooner up and down the Beaufort seacoast. There were five people on the crew; George used the rifle and another fellow the harpoon. This whale also had a young whale with it, but it sank when they shot it. Their boat had a sail, which they took down after they'd killed the larger whale.

It took the crew three days to haul the whale to Taaqpak's camp (*Takpaam Inaat*: MB 25). They had to throw away the meat because it had spoiled during this time, but they kept the maktak. George does not know how much the whale weighed, but he remembers that the bone was eleven feet long.

George also used to stay with Taaqpak, and they often fished for grayling in the Kuparuk River. George stayed at *Kuukpaagruk* (MB 30) several different years.

Nora Agiak (birth until marriage in 1931): Nora was born in Barrow on November 26, 1911, and lived the first five and one-half years of her life there. Her parents were Tom and Agiak Gordon. Tom was a white man from Scotland who came to Barrow during the commercial whaling days and was a whaler and trader there for several years, working with Charles Brower. Agiak was an Inupiaq Eskimo originally from the Utukok River country.

In the summer of 1917 Tom Gordon moved his family to *Pattaktuq* (Demarcation Point). There he built a log house and established a fur trading outpost for H. Liebes and Company, the same San Francisco fur house that Charles Brower represented. Agiak's brother Andrew Akootchook also moved there with his family, at the same time.

Nora remembers that during the time between 1918 and 1922, Indians used to visit them at Demarcation Point. They always used to talk about Fort Yukon, but she's not sure if that is where they were from. Nora's family would know when the Indians were approaching, because they would shoot three times as a warning. Then the Gordons would answer back with three shots, signalling that it was all right for them to come. They visited once in January or February, and another time in August, when they came to meet the fur trading ship. When the Indians came in August, Nora remembers them walking around in the water with their moccasins, and then trading their moccasins for sealskin mukluks. They would always try to trade their wolverine skins, and their dry meat. Their dry meat was very good as it was made from fat caribou. These Indians already knew the older Eskimos that were living around Demarcation Point. Nora said they were friendly, and did not try to steal or to hurt anyone.

Nora's youngest sister Olive was born at Demarcation on December 28, 1922. The next year, 1923, the family moved to Barter Island and Tom Gordon started the trading post at *Iglukpaluk*. Nora remembers when Knut Rasmussen of the Danish Fifth Thule Expedition stopped at Barter Island in 1924. She also knew Alec Severson from this same expedition.

Nora's mother Agiak saw an Indian one time at Barter Island. He did not hurt anyone. The only thing he did was steal a parka. But it was too small for him, so he brought it back!

George and Nora Agiak (marriage in 1939 to present): George and Nora were married at Barter Island in 1931. The next year they moved over to *Siktaqtitaq* (MB 31).

Their first child, John, died in boyhood. Their oldest living child, Mae Suapak, was born at *Sikṭaqṭitaq* on January 17, 1935.

Nora first met the Presbyterian minister Fred Klerekoper shortly after this time. He was travelling with Walton Ipalook Ahmaogak, and they stopped at *Sikṭaqṭitaq*. George was on a trip that time, so he didn't see him. But George got to know him later when he visited Barrow. Nora saw Klerekoper again in April 1937, at Barter Island. She also remembers seeing Roy Ahmaogak. On these same dates, the federal government's local reindeer superintendent Frank Daugherty was also visiting Barter Island. Nora is listed as one of the Barter Island reindeer owners in the government records of this visit (Klerekoper 1937: 8; US BIA 1938). Nora's second living child, Eunice Enilook Sims, was born at Barter Island just after this visit, on April 29, 1937.

Agiaks lived at *Sikṭaqṭitaq* off and on every year until 1943. In the wintertime, they would usually travel inland to hunt and fish. Their daughter Mae remembers the fishing trips they made to *Kuukpaagruk* (MB 30) on the Kuparuk River, and to *Siiq-siññak* on the Shaviovik River. They also fished and hunted on the Sagavanirktok River. Mae remembers that the grayling (*sulukpaugaq*) that they used to catch in the Kuparuk River were especially big and fat.

Agiaks also lived for awhile at *Nuvugaq*, where they had a house (North Slope Borough, 1980: 142). George has seen an old house at *Nuvugaq* that was built there by Captain Amundsen and his expedition.

In the late 1930's Agiaks made their first trip up to Kajich, in the mountains at the headwaters of the Hulahula River. They spent about two months up there. They have continued to go there over the years during the winter, sometimes staying there for several months at a time.

As well as making trips to Barter Island, Agiaks would also make an occasional trip to Beechey Point for trading. They knew the traders Jack Smith, John Olsen, Gus Masik, and Captain C.T. Pederson. Captain Pederson made a yearly trip from Barrow to Herschel Island in this ship, the *Patterson*. He would stop anywhere along the coast to pick up foxes and bring trade goods. Nora's father Tom Gordon got his outfit from Pederson. George remembers that in the 1930's, 50 pounds of sugar cost \$7.50 and 50 pounds of flour, \$3.00. Pederson would also take passengers on the ship; one time George rode with him from Beechey Point to Barter Island.

Agiak's fourth living child, Mildred Keaton Aishanna, was born in Barrow on July 29, 1939. Their fifth child, Maria Oroak Solomon, was born on January 20, 1942, while they were at Beechey Point. The sixth child, Tommy Ahngik Agiak, was born on November 26, 1943 in a small house that they had built far inland on the Kavik River (called the Shavioveak River by Kaktovik people). The exact location of this house, and Tommy's birthplace, is uncertain. The Agiaks used to live with Alfred and Ruby Linn during this time.

Around this time Jack Smith died of a heart attack and Henry Chamberlain moved away, meaning that both the Beechey Point and Brownlow Point trading posts closed down and Agiaks no longer had anywhere to trade their fox skins for necessary store items (Tom Gordon had died in 1938, thus closing down the trading post at Barter Island). Their friend Paul Kayutak told them they ought to move to Herschel Island, Canada, where they would be closer to a trading post. So in the fall of 1942 they decided to do so.

In October of 1942, on their way to Herschel Island, Agiaks took Dorothy Panikpak Gordon and her children over to the Aichilik River, so that they could hunt and fish there. Dorothy and Fred Gordon lived at *Uqsruḡtalik* (Griffin Point). But Fred had had to take John Olsen's boat and trade goods to Barrow after Olsen's death, and wait

there for freeze up before he could return to his family by dog team. So Agiaks wanted to help Dorothy and the children in Fred's absence.

While they were camped several miles inland on the Aichilik, George went over to Herschel Island with the dog team to get supplies, expecting to be gone only a couple of days. He ended up being gone more than two weeks. At first the women shot ptarmigan, but there weren't many fish that time, game was scarce and after awhile they could find no food at all. They ran out of what food they had, and were getting kind of worried. They wanted to move to the coast, but they had no dogs for transportation, since George had taken them all. They talked about walking to the coast, carrying just the tent and the stove and leaving the rest of the stuff, but decided against it. Luckily George showed up soon after that, with the supplies.

After George got back, he killed 17 caribou so that Dorothy and the children would have something to eat all winter until Fred returned. Agiaks ended up going to *Uqsruqtalik* and waiting with Gordons until March, when Fred returned.

Meanwhile, Agiak's oldest daughter, ten year old Mae, contracted pneumonia and her father had to take her to the Catholic hospital at Aklavik. The Catholics were very nice. But she had to stay flat on her back for several months and could not eat much. Later on, she was able to go to the Anglican boarding school at Aklavik, where she could still be near the hospital. She was gone from her parents for about one and one-half years. She used to get very homesick. Her father had to stop visiting her when he came by dog team to Aklavik for supplies, because she would want to go home so badly. But she made many good and lasting friends at the boarding school, and she has good memories of the whole experience. The school was very strict, but in retrospect Mae feels this was very good. The Eskimo, Indian, and white girls there all got along very well; there were no racial problems.

On weekends Mae would sometimes go home to the families of the different girls. There she would get to eat muskrat, rabbit, and beluga whale, as well as fish and some caribou. The Anglican minister and his wife and two children were also very nice; they treated her specially because she had been so sick and was from so far away.

The Anglican minister also let Mae go to church. One time she saw Tommy Uiañiq and Masak Gordon there, who had just been married (They were married in Aklavik in April, 1946). They were camped on the outskirts of Aklavik, and Mae wanted so badly to visit them at their camp, but the school wouldn't let her.

After spending more time in the hospital, Mae was finally able to go home to her parents at Herschel Island, in 1946. She still keeps up with her friends from Aklavik: recently one of these friends came to visit her at Barrow, bringing her a beautiful pair of beaded moose-hide moccasins that she had made.

When Mae got home to Herschel Island, she saw her new baby brother Mickey Putuguk for the first time. He was born on February 7, 1946, at Herschel Island. Two years later, on June 6, 1948, Alice Nunmuk ("Nuk") was born, and two years after that, on June 30, 1950, Sam Utuk was born, all at Herschel Island. Mickey, Alice, and Sam all have dual, U.S. and Canadian citizenship.

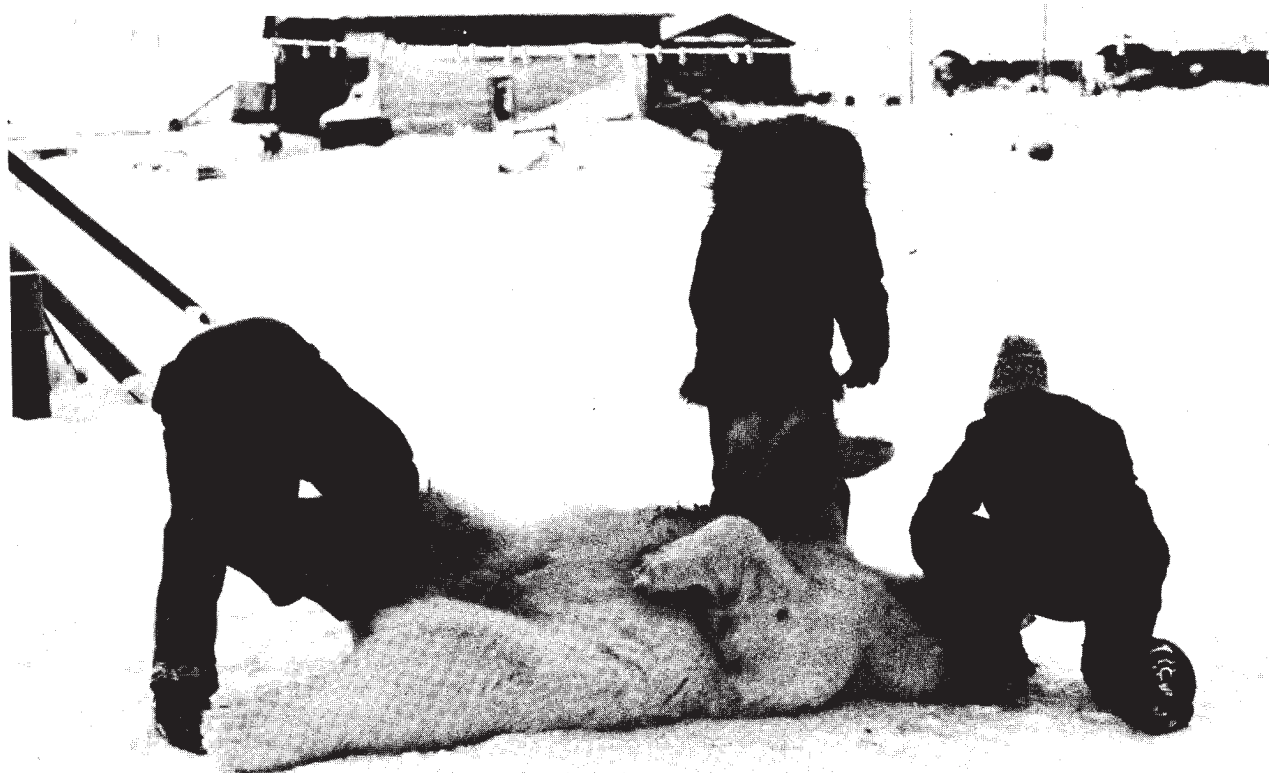
Eunice Enilook, Agiaks' second-oldest daughter, remembers that her father built a small log house for them when they got to Herschel Island. This was at Ptarmigan Bay. Her Mom had a treadle sewing machine there, but they were very poor then and could not afford any material. Eunice used to have lots of fun hunting and trapping, fishing, and playing, in those days. There was no school at Herschel Island, and Eunice did not go to school until she was 15.

George did some muskrat trapping while they were living in Canada, but he had to ask permission to do this because it was on someone else's land. If he trapped 100 muskrat, he got to keep only 25. He did not have to get permission to trap fox, however. He used to get white, silver, cross and red fox, and he would sell the fox skins at Aklavik. He also hunted wolverine, wolf, caribou, and seal, and caught fish. But he did not get any sheep. There were lots of porcupine around, and he sometimes killed these, too.

Agiaks came to Barter Island for Christmas of 1951, and then went back to Herschel Island. Relatives told them they should move to Barter Island because of wage employment opportunities there, and because their children were growing up without school (A school was established at Barter Island in about 1950). They therefore moved back in the spring of 1952, and George got a job working for the U.S. Coast and Geodetic Survey, measuring the depths of lagoons. Then in late 1953 he started working for the DEW Line. One year, he spent almost the entire year at "POW D" (*Nuvugaq*) and at "POW 3" (*Ikpigauraq* — MB 42). Nora and the children hardly ever saw him!

The Agiaks had two more children, who were born at Barter Island: Jerry Ahluuk on July 13, 1954, and Elizabeth Ann on March 9, 1956. Although George continued to work part-time for the DEW Line until his retirement several years ago, he also has continued to actively hunt and fish. Over the years, the family has spent up to several months each winter in the Brooks Range. Even though George has had health problems in recent years, he still manages to travel to *First* and *Second Fish Holes* on the

Photo 42. George Agiak helps his daughter and son-in-law skin a polar bear (M. Jacobson).



Hulahula River every fall and spring, and to set his fish nets in the lagoons around Barter Island during the summer. His grown children also hunt and fish for the family. Three of his daughters are accomplished trappers: Alice ("Nuk") has trapped wolverines, and Eunice has trapped more than 40 foxes each winter over the past several winters.

Although George and Nora have furnished a good deal of information about their lives, there is much more that is not told here. Several years ago, George wrote a book about his life that was about an inch thick. His son was getting ready to take this book to Anchorage to see about having it published when tragedy struck. The Agiaks' house was destroyed by fire, and the book was destroyed along with it. The original photo of Tom Gordon was also lost in this fire.

Tommy Uiññiq Gordon

Tommy Uiññiq Gordon was born at *Siku* (Icy Reef) on April 25, 1921, the son of Mickey Gordon and Rosie Piyuuluk Gordon. His birthplace, *Siku*, means "ice," and his Iñupiaq name Uiññiq means "flooding, unsafe ice," which describes the ice condition at the time he was born.

Uiññiq's father Mickey was the son of the Scottish whaler and trader Tom Gordon by his first marriage, to Apayauk. Apayauk was Charles Brower's first wife's sister, and also the sister of Neil Allen's mother. She died during childbirth with Mickey. Uiññiq's mother, Rosie Piyuuluk, lived in Inuvik N.W.T. until her death in summer 1980, at age 75.

The ruins of the cabin at *Siku* where Uiññiq was born can still be seen. There is another old house at this site, and a marker which resembles a small telephone pole.

Tommy Uiññiq (often called "Tommy O") grew up mostly at *Pattaktuq* in Demarcation Bay. His grandfather Tom Gordon had started a fur trading post here in 1917, an outpost of the H. Liebes and Company furhouse of San Francisco, which Charles Brower represented. Then in 1923, Tom Gordon built another trading post at Barter Island, and split the trade goods between the two stores.

In 1926, when Uiññiq was five years old, he lived in Barrow with his mother while his father and grandfather Tom Gordon went to San Francisco for a year so his father could have his appendix removed.

Then in 1928, they decided to close down the store at Demarcation and move all the trade supplies over to Barter Island, because there were more people living at Barter than at Demarcation. Uiññiq helped his father haul the flour, sugar, and other store goods over to Barter Island in a whaleboat.

In 1929 Mickey Gordon bought a house at *Piñuqsruluk* from Ned Arey, a white prospector and former whaler. Mickey paid \$200 for it, plus \$50 for the things inside. The house had been built by "Old Man Store," another white man never known by any other name (see *Old Man Store* site). Uiññiq lived here with his parents until he was 11 years old (1932) when they all moved back to *Pattaktuq* at Demarcation Bay. This was their home base until 1943, when they moved to Canada. Other families that lived at or near Demarcation Bay at various times during this period were the Ikpiaruks, the Kayutaks, the Putogeaks, and Nukaparuks, the Edward Arey family, and the Lawrence Malegana family.

During these years Uiññiq spent most of his time hunting, fishing and trapping. Although his father had been to school at Dutch Harbor on the Aleutian chain, Uiññiq never went to school because there were no schools in the area. The fact that Uiññiq reads and writes only a small amount may account for his unusually good mental recall ability for dates and detail.

One of the first things he learned was how to handle a shotgun. His family hunted ducks only when they had shotgun shells, which was not every year. But in the early 1930's they had a lot of shells, and the biggest catch he ever had was about 1930 when he was hardly big enough to hold a shotgun. He put 50 brant in the ice cellar that year. Sometimes his brothers used to set traps for brant. These were the same metal leghold traps that the people used for foxes. Demarcation Bay where they lived was also known for having lots of aqhaaliqs (oldsquaw ducks).

In 1934 or 1935 a "Norseman" airplane on skis landed on the ice of Demarcation Bay. It brought from Barrow the Presbyterian minister Fred Klerekoper, Alfred Hopson, and a teacher. The first airplane to ever land at Demarcation Bay, it was piloted by Sig Wien. While landing, the plane hit a crack on the ice and damaged the tail wheel, but they were able to fix it that night. They spent that night with the Gordons, then flew to Barrow the next day.

Uiññiq used to hunt and fish with the Norwegian trader John Olsen, who had a trading post first at *Uqsruqtalik* (Griffin Point) and then at *Imaignaurak* (Humphrey Point). In the spring Olsen would always go up the Okpilak River valley to look for gold. Uiññiq sometimes took him there, helping haul supplies. But Olsen would never let Uiññiq know the exact locations where he was prospecting in case he (Olsen) made a big discovery. The last year that Olsen was in the mountains, Paul Kayutak was also in the vicinity. He used binoculars to keep a close eye on Olsen's activities. Olsen would stay in the mountains between one and two months, returning to the coast in June (the old boiler that he used for mining is still in the Okpilak valley). Then he and Uiññiq would fish at Pokok (Humphrey) Bay and put the fish in the ice cellars.

Olsen ran a "business" of buying fish and seal from people, storing it, and then selling it back to them for the same price he paid them for it. He did this to help people out. For example, in the summer he would buy five gallons of seal blubber from Uiññiq for \$2.50, and fish for five cents apiece. Then Uiññiq would buy it back in the winter, for the same price. Uiññiq also sold and bought seal meat from him in the same manner. The only things Olsen made money on were the white fox he bought and sold, and the fish he caught himself. Fish kept in the ice cellar were five cents apiece, whereas those kept outside were two for five cents. Olsen sold some large arctic char for 25 cents each.

Uiññiq recalls that Olsen had a windmill with blades about five feet in diameter mounted on his roof at *Imaignaurak*. Olsen charged batteries, and had at least one electric light. He had a spring action brake for the windmill that ran through the roof. This brake eventually wore out in strong winds and burned up his generator.

Uiññiq also used to hunt polar bear. In late April he would travel due north from Demarcation Bay, sometimes about 30 miles out, to hunt them. He sometimes sold the hides to John Olsen. The *Diary of Fred Klerekoper* has a picture of John Olsen and his furs. The polar bear hide shown is probably from a bear Uiññiq shot. (Klerekoper 1937: 16). During the late 1930's, Uiññiq sold his polar bear hides for about a dollar a foot. A 12 foot bear is the largest he's shot, and he traded it for a 25-35 rifle, five boxes of ammunition, and some gun cleaning equipment.

Uiññiq once caught a mink at Demarcation Point. It was the first mink he had ever seen. He did not even know what it was at first, but received \$10.00 for it from the trading post. Uiññiq remembers that the bounty on wolves at that time was \$20.00.

Uiññiq knew several of the reindeer herders with the Lomen Brothers reindeer drive, which was in the area of Demarcation Bay in the fall of 1932. One of these was Paruk, also known as Albert Peluk. He also knew Edwin Allen, also known as Edward (Miller 1935). Edwin Allen, an Eskimo originally from northwest Alaska, stayed in Canada after the herders reached Aklavik. He married, had two sons and two

daughters, and remained there the rest of his life. Other herders with the drive that Uiññiq knew were Negaluk, Paniguk, Enignilook, and Mark Nuksun. Negaluk, who died in Fairbanks, may have been the Eskimo name for Peter or Tommy Wood. Mark Nuksun, who was originally from Barrow, still lives in Tuktoyaktuk. His name (spelled "Nerksana") is listed as one of the Canadian Natives present at Barter Island in April 1937 when the local reindeer superintendent Frank Daugherty visited there from Barrow.

The winter of 1935-36 was very severe, and a poor one for subsistence. There were no caribou, virtually no fish, and there was no open water for seal hunting. Uiññiq's family had lost their fish nets, hunting gear, and boats in a bad wind. They also had no dogs left. So he and his older sister Clara had to walk the 60 miles from Demarcation to Barter Island three different times for supplies. They walked the 60 miles in three days, stopping at shelter cabins at *Siku* the first night and *Pukak* the second night, and living on rations of tea, coffee and one-half flapjack each, twice a day. They could not carry a gun because it was too heavy, so they carried only a snow knife and an ax. On the return trip, they pulled a 350 pound sledload. The shelter cabins had woodburning stoves and wood already gathered, so all they had to do was light a match to heat them up (their match supply was very limited).

That same year, 1936, Joe Arey and his wife decided they'd be able to survive better if they left the coast and went up to the mountains for the winter. But this was a fatal mistake, as there was almost no game there either. Having only ptarmigan to eat, Joe Arey starved to death, and his wife came close to death. Uiññiq believes that if Joe's wife had fed him the backs of the ptarmigan instead of the chests, he might have lived, because the backs have a little fat on them.

The winter of 1937-38 marked the demise of reindeer herding in the eastern Alaskan Beaufort area. A big rain in December 1937 fell on top of snow and then froze, making it impossible for the reindeer herd to get at its food supply. The reindeer, which were up in the foothills around the Sadlerochit River, became skinny and then most of them starved. Wolves ate some of them too, especially at night when it was blowing. When Uiññiq went up to the herd with Ed Arey in February, 1938 to try to salvage some of the meat, there were several reindeer just laying around dead.

In April of the same year, the herder Johnny Malegana brought Mickey Gordon's share of reindeer, which was the last of the herd, from the Sadlerochit area over to Demarcation. When he started out he had 20 deer, but by the time he got to Demarcation most had been lost or eaten by wolves. Since a blizzard was threatening and there were wolves all around, they shot the last eight deer and put them in Uiññiq's ice cellar.

Usually in winter, Uiññiq and his family would spend time hunting and fishing in the Kongakut River valley. Uiññiq often got Dall sheep, especially in the late 1930's and early 1940's, but he never took more than ten per year. Before this, few sheep were found in the Kongakut as they were too heavily hunted for the commercial whalers living at Herschel Island.

The family often camped along the Kongakut at a historic camping place known for its abundance of willows. Here they would fish for arctic char and grayling, and hunt ground squirrel. The camp was located at about the 2,000 foot contour line, where a small river (incorrectly labelled Paulaluk River on the USGS map) flows into the Kongakut. (Paulaluk River is actually the next one farther south, which is also incorrectly labelled Pagiluk River. Pagiluk River is actually the next one, south of Whale Mountain.)

One year the family spent the entire winter (September 1942 to March 1943) in the Kongakut Valley, at the Pungautilik River near the British Mountains. Here at this

camp, the family caught many arctic char in their net. Uiññiq remembers looking down in the clear water of the river from a hillside and seeing one fish after another swim upstream just before freeze-up. After freeze-up, they would set the fish net, and then let the hole freeze over to keep the wolverines out. Uiññiq remembers what he got in the way of game that winter: eight wolverine, one white fox, one cross fox, two red fox, nine sheep (all in one day) and one brown bear. He and his father would take supplies to the rest of the family every month, walking while eight dogs pulled the sled.

In the spring of 1943 Uiññiq's father became ill and had to be taken to the hospital in Aklavik. At this time, Uiññiq's family then moved to Herschel Island so they could be closer to the Aklavik doctors. Mickey Gordon died in Aklavik in August, 1943.

Meanwhile, the Alaskan trading posts that Uiññiq's family had relied on were closing down due to the fall of the fox fur price. Tom Gordon died of a stroke in 1938 and no one took over the Barter Island post. John Olsen died of pneumonia in the fall of 1942, after a trip to Barrow to buy a new boat. Fred Gordon took Olsen's remaining trade goods to Barrow but was not paid anything for them. After this Uiññiq went all the way to Henry Chamberlain's post at Brownlow Point to trade, but when Chamberlain left in 1943, the family started trading at Aklavik, in Canada.

In the fall of 1943, after buying ammunition in Aklavik, Uiññiq got two ugruk and nearly 70 caribou, then stored them in ice cellars at Demarcation and Herschel Island. He did not want to get stuck again with another food shortage. This proved to be a wise decision, for the next spring Fred Gordon's family at *Uqsruqtalik* (Griffin Point) was struck by the flu epidemic and needed meat badly. Fred came over to Demarcation and got some of the meat. He later told Uiññiq that his family was really happy when they got that meat. Uiññiq also traded three of the caribou to George Agiak, and gave him some, too. The caribou were traded for a plywood grub box, the first plywood Uiññiq had ever seen. However, it broke all to pieces while Uiññiq was dogsledding his way home.

Uiññiq lived at Herschel Island from 1943 to 1953. In April 1946 he married Evelyn Masak Ologak, the daughter of Richmond and Annie Tiyyugak Ologak, who had also moved from Alaska to Herschel Island. They were married in Aklavik, by the Anglican minister there.

Uiññiq's trapline ran from Herschel Island to Demarcation Bay. He had a fast dog team then, and could make the trip in eight hours. It took him 31 hours, however, to travel from Herschel Island to Aklavik, as he had to make one camp along the way. When he travelled from Herschel to Barter Island, he would also either make one camp, or spend the night at his house at Demarcation. He carried a hot water bottle for warmth when sleeping, and also to wet down the hardwood sled runners so a film of ice would form to make for easier pulling of the sled.

During this time he taught two young brothers, Philip and Riley Tikluk, how to trap foxes. However, after Uiññiq showed them how, it wasn't long before they began to catch more foxes than he, so Uiññiq moved his trapline way out on the ice — then he again caught the most foxes.

While Uiññiq was living at Herschel Island, some surveyors moved into his Demarcation Bay house without his permission. They installed an oil stove, and they took his valuable things: a piece of mastodon tusk, as well as the spears and arrowheads which he had collected. When Uiññiq stopped there on one of his return trips from Barter to Herschel Island, he told them it was his house and he spent the night there with them. He did not ask them to leave, however.

Uiññiq and his father had found the piece of mastodon tusk at the Alaska-Canada border, right by the survey marker. Weighing 20-30 pounds, it was only a piece of the

rest of the tusk, part of which was sticking out of the ground. Around 1940 was the last time he saw it; he thinks that now it might be covered up with gravel.

Uiññiq recalls how it would occasionally get very hot during summers at Herschel Island and there would be many mosquitoes. So he would sometimes climb down inside an ice cellar to sleep. It was nice and cool down there, no mosquitoes, and he would sleep very well.

Uiññiq had an uncle in Canada named Tom Kalinyak who was well-versed in the history of the Herschel Island area (he was Agiak Gordon's cousin). Kalinyak has made a tape of the whaling days at Herschel Island. He knew Ned Arey well, since he spent his early years with Ned's oldest son Edward Gallagher, who was the same age. Although Kalinyak was unsure of his own age, 1902 was the year he started to remember (judging from other sources, both he and Gallagher were probably born in the late 1890's). Ed went to school at Herschel Island, where his father Ned was a carpenter and boat painter. Then later Arey's moved to the Alaskan Beaufort coast, and Kalinyak stayed in Canada.

Edward Gallagher Arey used to live at *Pinguqsruluk*, as well as Barter Island and *Siku*. When he moved to Canada in 1941 or 1942, he gave his house at *Pinguqsruluk* and some of his traps to Uiññiq.

Edward was a half-brother to all of Ned's younger children. Edward's mother died in the flu epidemic, at the same time that Tom Gordon's first wife Apayauk died. Ned and his second wife Ekayuak's children were Joe, Billy, Tommy, Jim, and Mae Suapuk Kayutak.

In addition to those reindeer herders that were part of the Lomen Brothers reindeer drive, several other Alaskan reindeer herders that Uiññiq knew ended up in Canada. Johnny Malegana, who brought the reindeer to Uiññiq in the spring of 1938, died recently in Aklavik. Completely blind at the time of his death, he always had only one eye, and thus had a characteristic way of walking with his head up and a strained look developed from trying to see his way through blinding snow.

At least eight of the Alaskan reindeer owners listed in the records as being present at Barter Island in 1937 (U.S. BIA 1938) later moved to Canada and became Canadian citizens. These included Tom and Agiak Gordon's children Charlie and Donald (both now deceased) and Jean, and Alec. Also Alec's wife Hope, Silas Kagigana, Jean's husband Tommy Arey, and the late James Kowana. Alec and Hope Gordon live in Inuvik; Jean and Tommy Arey live in Aklavik; and Silas and his wife Lara, who is Uiññiq's older sister, live in Tuktoyaktuk.

Except for Uiññiq's youngest brother Billy, who lives at Barter Island, the rest of Uiññiq's brothers and sisters live in Canada. In order of their age older to younger they are: Lara, (Uiññiq), Emma Arey, George Gordon, and Stanley Gordon, all of Inuvik; Jean Komeak of Tuktoyaktuk, and Ida Joe, who was adopted by "Old Irish" Kiuwia. Uiññiq's older sister Clara died at Herschel Island.

"Old Irish" Kiuwia, whose Inupiaq name means "the northern lights," was originally from the Kobuk River country. His sister Kuutuq, or Kitty Rowland, who now lives in Inuvik, has been up the Kongakut River and over the portage to Fort Yukon by dog team.

Uiññiq and his wife Masak moved from Herschel to Barter Island in 1953, and Uiññiq began working for wages. The past few years he has worked in Kaktovik as a heavy equipment operator for the North Slope Borough. When he can, he likes to take time off to go fishing and to hunt for caribou, sheep, seal and ugruk. In April of 1982 he

returned to the Kongakut River on a fishing and hunting trip. He has occasionally gone whaling, but unlike most Kaktovik people he does not eat much maktak. However, he helps "pijak" (butcher), divide and distribute the whale, and he celebrates the Nalukatuq feast with the other Kaktovik people.

Alfred and Ruby Linn.

Note: Additional information on Ruby Linn is contained in (North Slope Borough 1980: 165-167)

Alfred Linn, Sr. (birth until marriage in 1943): Alfred Linn Sr. was born in Barrow on November 12, 1918. His mother was Ahtangatoak and his father was Koganalook. His paternal grandmother was Paniorak and his paternal grandfather, Ahkivianak. Although Alfred's last name was originally Koganalook, he changed it to Linn in the early 1940's when he started working for wages, because "Linn" was easier to pronounce.

Alfred grew up in the Sagavanirktok River-Foggy Island area. His family had a summer camp at *Foggy Island* (MB 12) and he lived in the winter at *Koganak Inaat* (MB 35). They also had a house on *Pole Island* (MB 18), the remains of which, according to Alfred, can still be seen.

Alfred was at *Foggy Island* when the herders from the Lomen Brothers reindeer drive were there, which was when he was about 12 years old. He remembers the herders Paruk (or Peluk) and Unilook (or Enignilook) (Miller 1935: 157). Tommy Uinñiq Gordon also knew these same two herders when they were at Demarcation Bay.

Alfred hunted and trapped in the area between the Sagavanirktok River and Kuparuk River and from the Sagavanirktok all the way over to the Canning. Pole Island was an especially important hunting, trapping and fishing area for Linn and his family: seal, ugruk and polar bear hunting in the spring, usually in April; fishing in the summer, polar bear hunting in the fall and early winter, and trapping in the winter. The Shaviovik River was important for fishing, especially in winter months.

Ruby Okpik Linn (birth until marriage in 1943): Ruby Okpik Linn was born in Barrow on September 5, 1920, the daughter of Richmond and Annie Tiyyugak Ologak. Growing up mostly in the Camden Bay area, her life was similar in many respects to that of her brother, Wilson Sopluk (see Wilson Sopluk chronology which follows). Sopluk, born July 13, 1914, was the eldest child and only boy in the family. Ruby's living sisters are Molly Aiyapana of Kaktovik, born May 29, 1923 in Barrow; Evelyn Masak of Kaktovik, born June 9, 1925, at *Aanalaq*; Pearl of Tuktoyaktuk, NWT; Ethel Otoayuk Gordon of Kaktovik, born February 25, 1929 at Camden Bay; and Emily Kaunak of Barrow. Those sisters no longer living are Faith Tikluk, who died in Barrow in 1944, and Rosie Ekoosik, who died there in spring 1979 (Appendix 1, Genealogy). Ruby lived with her family at *Tigvagialuk* (Tigvariak Island, MB 17) for six months, about 1940.

Alfred and Ruby Linn (marriage in 1943 to present): Alfred and Ruby were married by the well known trader Charles Brower in Barrow, in August 1943. That winter they lived with Agiak, far inland on the Kavik River (called Shavioveak River by Kaktovik people). Their first child, Alfred Jr., was born in Barrow on October 4, 1944. Their second child, Virginia, was born at Barter Island on March 12, 1947. After this they moved to Herschel Island, Canada where they lived from 1947 until 1953.

Alfred worked with the mounted police at Herschel Island for four years. He earned \$50 a month at this job. The police used to come over to their house, where they all played rummy.

Alfred also earned some money trapping, and he did a lot of hunting and fishing. He fished with his father-in-law, Richmond Ologak, who would put his canoe on the sled and take it to where there was open water. They also dried large quantities of fish.

Two of Alfred and Ruby's children were born at Herschel Island: Adam on January 2, 1950, and Benjamin on February 9, 1951. Adam and Benjamin therefore have dual U.S.- Canadian citizenship.

After Linns returned to Barter Island in 1953, Alfred began working for wages with the DEW Line military installation. The rest of their children were born at Barter Island: Dorothy on September 11, 1953; Maggie on November 28, 1955; Isaac on February 13, 1956; Dora on May 30, 1958; Harry on April 28, 1960; and Forrest on December 1, 1961.

The Linns have lost three of their children: Forest died on September 7, 1974; Dora was killed in a house fire at Kaktovik in fall 1979; and Isaac died in Barrow in 1981.

The Panningona sisters: Mary Sirak Akootchook and Josephine Iqagin Itta

Mary Sirak Akootchook and Josephine Iqagin Itta grew up in the Canning River delta area with their parents, Samuel Panningona and Iva Evikana. Josephine was born at Barrow on April 6, 1911. When she was ten years old, she moved to Flaxman Island with her parents. They travelled by boat, and Iva was pregnant with Mary at this time. Mary was born after they reached Flaxman Island, in September, 1921.

Flaxman Island has three Iñupiaq names: *Kuugruaq* (meaning Canning River), *Qikiq-taq* (meaning big island), and *Sirak*. The story goes that the polar bears named the island "Sirak" because this means "the place where they go to cover themselves up with snow to have their cubs." Mary was given the Iñupiaq name "Sirak" because she was born there so soon after her parents' arrival.

Samuel Panningona built the family's house on Flaxman Island in 1924, at the same location where the explorer Leffingwell had his house. Still standing, the Panningona house is sometimes incorrectly identified as Leffingwell's house.

The Panningona family usually spent winters in this house on Flaxman Island. From here they would trap, hunt ptarmigan and net seal. However, they also lived a semi-nomadic lifestyle, moving seasonally to where the fish and game were. In March or April, they would travel up the Staines River by dog team, hunting caribou and ptarmigan along the way. When they reached Ignek Creek on the Canning, they would stop and fish through the ice for awhile. From here they travelled northwest about 20 miles, using two dog teams to cross over the mountains. They would let one team rest while the other pulled the sled with the gear. They fished at the warm springs on the Kavik River (called Shavioveak River by Kaktovik people). Then they travelled down the Kavik to its confluence with the Shaviovik River, and down the Shaviovik to the coast. Here they would visit with Qalliniq (Elizabeth Griest) and her brother Kakianaq, who had a house on the mainland across from Tigvariak Island. From here they would go home to Flaxman Island while ice was still firm enough for dog-sled travelling. Then during the summer and early fall, Panningonas often moved to their summer camp at *Agliguagruk* (Brownlow Point). From here they used their boat to hunt waterfowl and caribou along the coast.

Iqagin and Sirak both began learning hunting skills at an early age. When Iqagin's father taught her how to open a steel trap, she was so little that her feet weren't strong enough to hold it open, and it would spring back and grab her thumb. Her father made her a special piece of wood to help hold it open. The girls did a lot of hunting with their father when they were teenagers. They fished all the time they were growing up.

Agliguagruk (Brownlow Point) was a very important summer and fall fishing area. Fish were caught with nets set in the ocean north-northeast of the point, sometimes two to three miles from shore. They were also set in the lagoon inside the spit just to the east of the point. Arctic char (*iqalukpik*) were the first fish to appear in the nets, in early July. The family also caught sculpin (*kanayuq*) and flounder (*nataagnaq*) here. Then later, starting in August, the arctic cisco (*qaaktaq*) run would begin. September was the best time for catching arctic cisco, and the Panningonas caught many many of these small fish. They would fish here all day long if they wanted, working the net from one end to the other, and it would be full again and again. They would finally have to go back to shore because they could not carry any more fish in their boat.

Iqagin and Sirak also fished for arctic char all along the coast southeast of *Agliguagruk*, as far as the mouth of the Canning River's main channel. Here they fished for grayling (*sulukpaugaq*) as well as char, again with nets.

Later in the fall, after freezeup, the Panningonas would travel by dog team to the area of the Canning River about ten miles due south of *Agliguagruk*. Here they fished for grayling and ling cod (*tittaaliq*) for several miles along the main and southern branch of the Canning.

In late winter and springtime, the family travelled inland up the Canning River to fish. The area around the mouths of Ignek and Nanook Creeks, which is called Suuvlik, was good for fishing. Then when the family crossed over the mountains to the Kavik River (as mentioned previously), they fished for arctic char and grayling in the warm springs. Travelling further downriver, they sometimes caught pails and pails of small black fish at the Kavik's confluence with the Shaviovik, and around the Shaviovik River delta. They also caught an unidentified species of small whitefish, probably least cisco (*iqalusaaq*). The fish were very good eating and were also fed to the dogs.

In summertime, the Panningonas hunted caribou all along the coast of the Canning River delta, by boat and on foot. Iqagin tells that during the summer, when they saw caribou along the shore of the mainland from *Qikiqtaq* (Flaxman Island), they'd go hunting. Their hunting area extended as far east as the Canning River's main channel and as far west as Point Hopson. They sometimes walked three or four miles inland in pursuit of caribou, and they did a lot of backpacking to bring the meat out.

In late winter and early spring, the Panningona girls travelled by dog team with their father, up the Staines River to hunt caribou. The caribou wintered in a large area west of the Staines River, between ten and 25 miles inland from the coast.

Trapping was a winter occupation, and, as mentioned previously, the Panningona girls learned to trap early in life. The barrier islands were especially important for arctic fox trapping. Traps were set all over Flaxman Island, and on all the Maguire Islands. Here the girls caught many white and some blue foxes. They also had a trapline extending along the coast from Flaxman Island to Point Gordon. In the fall time, they sometimes travelled inland along the Staines River to where it joins the Canning, setting traps along the way. Not far from where the rivers join, the fur trader Henry Chamberlain had a house. The family trapped around this area and for several miles upriver. They got gray and red as well as white fox.

Henry Chamberlain also had a trading post at *Agliguagruk* where people could trade their furs for merchandise such as flour, sugar, tea, coffee and ammunition. He settled there in 1923 and remained until 1943. When Chamberlain first arrived at *Agliguagruk*, Mrs. Panningona made fur and skin clothing for him and took care of him. He never forgot about this, and when he left in 1943, he gave all his remaining merchandise to the Panningonas.

In springtime, there were many many ducks around Flaxman Island and *Agliguagruk*. Common eiders (*amauligruat*) and king eiders (*qiniligich*) were the

main species hunted during this time, and the eastern part of Flaxman Island was the most important area for hunting them. Some waterfowl and their eggs were also taken on Pole Island and Belvedere Island. Waterfowl eggs were also gathered all along the barrier islands, and driftwood for heating was gathered at the same time.

In falltime Panningonas hunted black brant (nigliŋgat) around *Agliguagruk*, and on the eastern part of Flaxman Island. Samuel Panningona always trapped snowy owls in this same area. The owls were trapped for food.

Waterfowl and other fish and game were stored in the Panningonas' ice cellar near their house on Flaxman Island. Many times in the fall and winter they had visitors who were very hungry. They would feed anyone who was hungry, from the birds in the ice cellar. For example, during the winter of 1939-40, several present-day Kaktovik residents were living on the Shaviovik River, and it was a very poor year for subsistence. Two of these people came to Panningonas on Flaxman Island and got birds, seal oil and fish to take back to another who otherwise would have died of starvation.

Most of the Panningonas' seal hunting took place in the area north of *Agliguagruk*, Flaxman Island and North Star Island, extending out about six miles. They also hunted seal from Flaxman Island all the way over to Beechey Point, on the outer side of the barrier islands. They did not hunt seal inside the barrier islands.

The family hunted seal all times of year, whenever there was open water. Sometimes they would hunt them on the ice, and other times they netted them.

The Panningonas hunted polar bear in fall time on the coast off *Agliguagruk*. They also hunted them to the west of their cabin on Flaxman Island. As stated earlier, "Sirak" means "place where polar bear go to cover themselves up with snow and have their cubs."

Mary and Josephine hunted ptarmigan in winter and early spring, on the ice between Flaxman Island and *Agliguagruk*. Mary can remember having ptarmigan for breakfast, ptarmigan for lunch and ptarmigan for supper day after day during lean times. She hunted both ptarmigan and squirrel on the Canning River channel immediately east of the Staines River, from the mouth to about five miles upriver.

The Panningona family lived in the Canning River delta area until the 1940's, except for 1929-1931 when they lived at *Kanigtuq* (MB 31) on the east side of Prudhoe Bay. This was also where the Tigiak family lived, and Evon Anugasak Egaugak, a cousin of Samuel Panningona, had reindeer at this site. Panningonas spent Christmas 1930 at Beechey Point and then returned to Flaxman Island by sailboat the following summer. Sirak lived at *Kanigtuq* again for a year, 1940, after she married Isaac Akootchook.

In fall 1944 Sirak and Iqagin's mother, Iva Evikana, died of pneumonia. She is buried in the graveyard at Beechey Point. In early 1945, they lost their sisters Eva and Ida to the flu epidemic. Their graves are also at Beechey Point.

Samuel Panningona began working for the U.S. Coast and Geodetic Survey at Tigvariak Island in the late 1940's, and between 1947 and 1949 he, Josephine and his other daughter Nellie moved to Barrow, travelling there by airplane.

Mary and her husband Isaac Akootchook often hunt and fish at Flaxman Island and *Agliguagruk* in the summer. They stay at the Panningona cabin on Flaxman Island. They plan to spend more time there now, because Isaac retired from the Barter Island DEW Line site in July 1982, where he was employed for 25 years.

Wilson Soplu

Note: Another, much more detailed interview with Wilson Soplu is contained in (North Slope Borough 1980: 186-196).

Wilson Soplu, born in Barrow on July 13, 1914, is the eldest and only son of Annie Tiyyugak Ologak and Richmond Ologak. Wilson is most often known by "Soplu," his Iñupiaq name as well as his English last name (he never assumed the name Ologak as an English last name, but took Soplu instead).

When Soplu was a small boy, he lived in the Ikiakpaurak Valley south of the Shublik Mountains, in an ivruk, or house built of willows and sod. That house was very warm. During that time they fished in the Siiqsiññak of the Canning River, in the vicinity of Ignek and Nanook Creeks and around Shublik Island. A Siiqsiññak is a place where river overflow has made the ice very thick.

After this, they moved to Barter Island and built a small wooden house. This house had no window glass — just ugruk windows. They stayed there for two years.

When Soplu's father started herding reindeer — sometime around 1925 — they moved over to *Aanalaag*, taking some 200 reindeer that they had gotten from Andrew Akootchook of Barter Island. They built a house near the lake about three miles southwest of Anderson Point, at the site marked Koganak on the USGS map. Johnny Koganalook also had a house here (hence the name Koganak) and his son Levi Griest herded reindeer in the same area. Koganalook had come down the Colville River with Richmond in an umiak, several years earlier.

Aanalaag was a good area for keeping track of reindeer, as it was relatively high and dry land — almost like a large, low hill — so it was easy to see the deer and corral them.

Every spring, Soplu would help his family take the herd up to the Sadlerochit Mountains. They would usually leave in late winter and go to Sivugaq on the Sadlerochit River, where there is a long, high bluff. After remaining there awhile, they'd go up the Sadlerochit River to the mountain valley beyond Sadlerochit Springs. Here the reindeer would have their calves. The first ones were usually born in April.

After the calves had become bigger, the herders would slowly guide the reindeer towards the coast, letting them graze all over the long, low hills between Sadlerochit and *Aanalaag*. One of these hills is called *Nasaruk*, because it looks like a woman with a pack on her back (the word for this is *Nasak*).

The Ologaks used binoculars to watch the reindeer and try to keep track of them, but it was still very difficult. There were no skidoos then to help round them up. Wolves often attacked the deer also. Soplu said that there were no caribou around, when the reindeer were there.

Although *Aanalaag* was the only coastal place where Ologaks kept reindeer, they had several other houses along the coast, in the Camden Bay area. One was at the base of Konganevik Point, near the graves (see *Kajiññiivik* site). Another was on the coast directly across the bay from the tip of Konganevik Point, by the lake. Another was on Simpson Cove about a mile from *Nuvugaq*. Still another was at *Sanniqsaaluk*.

In the Camden Bay area, Soplu noted Iqalugliurak (Carter) Creek as especially important for fishing (Iqaluk means fish; the English name Carter Creek is not generally known or used by Kaktovik people). June is the best month for fishing here. Arctic char (iqalukpik) and arctic cisco (qaaktaq) are caught. The area between Iqalugliurak Creek and *Aanalaag* is noted for kanuq (snow geese) and there are lots of kugruk (whistling swans) in this area.

Soplu and his family used to do a lot of fishing in the Shavirovik River, especially the Shavirovik River delta. They built what Soplu calls a "beaver house" about three miles west of the delta. Many pieces of coal were around this site, which they used for fuel. They lived at this site for one year (even though they fished at the Shavirovik River for several years). They also built a small house several miles inland on the Shavirovik (exact location not determined) which they used on winter fishing and hunting trips. Soplu's father Richmond Ologak and William Ekoolook, who had a camp nearby, used to fish together, in the summer before freeze-up. There were so many fish that all they had to do was put the net (kuvraq) in the water and pull, and it would be full of fish. They would just cut the fish in half, but still there were sometimes more fish than they could handle in a day. One year, they got so many fish that they couldn't use them up in a whole year. They caught arctic cisco (qaaktaq), arctic char (iqalukpik), and paigluk. The paigluk had pinkish-white meat similar to the arctic char, but they had black fins. (See *Fish* under Resources Harvested).

Soplu says there has been a change in the fish populations of the Shavirovik River. It used to be that the fish were small and there were many of them; now, there are fewer fish and the ones that are being taken by Kaktovik people are big.

The Ologak family also lived for one year on the barrier island which is northeast of Tigvariak Island. Soplu thinks it was Belvedere Island (their only name for it was Qikiqtaq, which means "island").

Around 1940, Soplu married Annie Kayutak. Annie, born at Demarcation Point on July 22, 1922, is the daughter of Paul Kayutak and Mae Suapak, who were both long-time residents of the coastal area between Camden Bay and Canada. Their first child, Jimmy Soplu of Kaktovik, was born in the mountains along the Sadlerochit River, on April 18, 1941.

By the mid 1940's, the price of arctic fox fur had "dropped down to nothing" and all the Alaskan Beaufort coastal trading posts had closed, so in 1946 Soplu and his family moved to Herschel Island, Canada. Here they lived for seven years, returning to Kaktovik in the spring of 1953. They used to hunt, fish and trap from Herschel Island and all over the MacKenzie Delta area, but they especially noted Hooper Island, where they lived during the summer of 1952. There were lots of karjuq (snow geese) in that area.

Soplu had had two more children before going to Canada: Billy on August 25, 1943 and Alice Faith in 1944. Alice died while they were in Canada. Then Mark, who was born in Canada in 1946, died several years later in Fairbanks. Two of their living children, both Kaktovik residents, were also born at Herschel Island and therefore have dual U.S.-Canadian citizenship: Eve Kignak on April 1, 1949, and Joshua on May 6, 1951.

Soplu had two other children who died: Maggie, and Donald, who drowned when he was five years old. Their family was further struck by tragedy a few years ago when Annie's brother Jonas Kayutak and his son were lost and drowned between Herschel Island and Philips Bay in Canada.

Soplu's other living children, born at Barter Island or Barrow, are: Fred (born November 8, 1954), Joe (born September 14, 1955), George T. (born October 21, 1960), and twins Linda and Lucy (born April 15, 1963).

Soplu retired from the Barter Island DEW Line Site in October, 1978, after 25 years of government service. He was awarded a Swiss gold watch bearing the inscription "Wilson 'Easy Money' Soplu" ("Easy Money" being his English nick-name). Since then, he has been trapping, hunting and fishing full time. He spends much time each winter in the Sadlerochit Mountains.

APPENDIX 5

Muskox

Muskox (*Umigmak* — *Ovibos moschatus*) were once widely distributed across much of the North Slope of Alaska, apparently in scattered locations, and were hunted by the Iñupiat people. Muskox have historically been particularly vulnerable to hunting, and the demand for meat by crews of overwintering whaling ships plus the introduction of firearms apparently led to their extinction in the 19th century.

As part of an effort to reestablish muskox on the North Slope, 50 muskox were brought from Nunivak Island to the Arctic National Wildlife Refuge and released at Barter Island in March and April of 1969. In June 1970, 13 muskox were released at the Kavik River, about 90 miles southwest of Kaktovik (Jennings and Burris 1970). These transplants were a cooperative endeavor between the U.S. Fish and Wildlife Service and the Alaska Department of Fish and Game (Burris and McKnight 1973). Kaktovik residents helped with the muskox transplant at Barter Island. The animals were brought to Barter Island by Alaska National Guard C-123 aircraft in two loads about a week apart, and were released as soon as they arrived.

The muskox were shipped in wooden crates. Villagers helped release animals in the first load at the end of the Barter Island airport runway; they hauled animals from the second load over to Manning Point ("Drum Island") on sleds pulled by snowmachines. The weather was cold with blowing snow during both releases.

Some of the muskox were quite vigorous, while others could barely move because of the effects of sedation and extreme stress. At least ten muskox died during and shortly after the transplant. Village resident Daniel Akootchook recalls two muskox that were in small crates . . . they could not stand up. Villagers tried to get the muskox to stand by lifting their legs and head, but it was only partially effective. Some people even took food and water to the muskox. Isaac Akootchook stated, "One big bull was in a small box. He could not even stand up or move around — just bent over. And when they let him out of the box he could not stand up straight. He was just stiff." University of Alaska researchers believe that this was not only a result of being in the small crates, but also because of capture myopathy, a disease caused by extreme stress and long periods of not eating. The released muskox scattered; some even went out on the ice of the Beaufort Sea, but by using snowmachines, Kaktovik villagers herded the animals back onto land. A few other animals stayed near the village. Instances of people being "charged" by muskox were reported during this time.

The hides from dead muskox were kept by the government. The meat was offered to village people but no one took it because they did not want meat from animals that had been drugged.

Some of the muskox went east into Canada, and at least one was reported on the south side of the Brooks Range near Arctic Village. Some of these far-ranging muskox were shot by people unaware of the reestablishment effort.

A year or two after the transplant a group of Kaktovik people, travelling inland up the Sadlerochit River, came upon a small muskox calf, alone and starving. They fed it

milk from a bottle and took care of it for awhile. Then they took it back to the nearby muskox herd and left it, but when they returned later the calf was dead.

The transplant of muskox onto the the North Slope has been a success. At present three main herds and a total of over 200 muskox inhabit the Arctic National Wildlife Refuge. There has been no open hunting season since the transplant in 1969; however, in 1982 the Alaska Board of Game approved a statewide permit drawing (sport hunting season) allowing for five mature bulls to be taken in the Arctic National Wildlife Refuge beginning in March 1983.

Kaktovik residents have continued their support of the muskox reestablishment effort. They maintain a keen interest in the muskox, commonly coming across them in their travels, and often reporting their sightings to U.S. Fish and Wildlife and Alaska Department of Fish and Game biologists. Animals of the Sadlerochit herd, in particular, are often encountered by villagers.

LITERATURE CITED

- Adams, Jacob. 1981. "Arctic Research A Necessity for Cultural Survival." *In* Tundra Times Vol. XVIII No. 31. Anchorage. p. 3.
- Anderson, R.M. 1919. Report on the natural history collections of the expedition in the Stefansson-Anderson arctic expedition: preliminary report. Anthropological Papers of the American Museum of Natural History. Vol. 14, Part 1. New York.
- Arctic Environmental Information and Data Center. 1979. Potential National Register Properties in the Beaufort Sea coastal zone — Colville River to Canning River. Prepared for North Slope Borough Planning Department. Anchorage, Alaska. 83pp.
- Association of Village Council Presidents. 1978. A special relationship with the Land. Recommendations by the Association of Village Council Presidents on National Interest Lands of the Yukon-Kuskokwim Delta Region in Southwestern Alaska. Bethel. 14pp.
- Braham, H. Howard; B. Krogman, M. Nerini, D. Rugh, W. Marquette, and J. Johnson 1980. Research on bowhead whales, June-Dec. 1978. In Report to International Whaling Commission 1980 SC/31/Doc. 51. pp. 405-413.
- Brower, A.K. 1979. Beaufort lease sale public testimony. *In* the Arctic Coastal Zone Management Newsletter. June. North Slope Borough, Barrow, Alaska. 20pp.
- Brown, W.; Schneider, W.; Worl, R.; 1979. Introduction *in* Native Livelihood and Dependence. A Study of Land Use Values Through Time. National Petroleum Reserve in Alaska. 105(c) Land Use Study: Field Study 1. U.S. Dept. of Interior. Anchorage.
- Burris, O.E. and D.E. McKnight. 1973. Game transplants in Alaska. Alaska Department of Fish and Game. Game technical bulletin No. 4. 57pp.
- Cooperative Extension Service. 1974. Alaska's game is good food. Cooperative Extension Service. Univ. of Alaska. Publication 126. Chart I p. 11.
- Cooperative Extension Service. 1974-80. Cost of food and other items at home for a week. University of Alaska and USDA. Fairbanks.
- Fiscus, C.H. and W.M. Marquette; 1975. National Marine Fisheries Service Field Studies Relating to the Bowhead Whale Harvest in Alaska, 1974. Northwest Fisheries Center, NMFS, Seattle, 21pp.
- Freeman, Milton. 1976. Inuit Land Use and occupancy project. (3 vol.) Ottawa: Canadian Department of Indian and Northern Affairs.
- Hopson, F. 1977. North Slope Borough traditional land use inventory. *In* Beaufort Sea study, pp. 66-89.
- Hurwitz, R. 1977. Report to Congress on subsistence foods and physical and mental health. Yukon-Kuskokwim Health Corporation. Bethel, Alaska 6 pp.

- Hutchinson, I.W. 1937. North to the rime-ringed sun: an Alaskan Journey. Hillman-Curl Inc., New York. 262 pp.
- Jacobson, M.J. 1978. Excerpt from a refuge manager's journal. Fish and Wildlife News. January. pp.6-7.
- Jacobson, M.J. 1979. Utilization of the Porcupine caribou herd at Kaktovik. Unpublished report. Arctic National Wildlife Range, U.S. Fish and Wildlife Service. Fairbanks, Alaska.
- Jacobson, M.J. 1980. Grizzly bear management plan, William O. Douglas Arctic Wildlife Range. Unpublished draft in files of U.S. Fish and Wildlife Service, Fairbanks, Alaska. 23pp.
- Jennings, L.B. and O.E. Burris. 1970. Wildlife-Stocking-Muskoxen, Alaska Department of Fish and Game Project No. W-17-2. July 1, 1969-June 30, 1970. Juneau. 12pp.
- Johnson, J.H., H.W. Braham, B.D. Korgman, W.M. Marquette, R.M. Sonntag, and D.J. Rugh; 1981. Bowhead whale research: June 1979 to June 1980. NMFS. Marine Mammal Laboratory, Seattle. In Report to International Whaling Commission. 1981. SC/32/PS 10.
- Kaveolook, H. 1977. Kaktovik on Barter Island: A brief history of Kaktovik and its schools. North Slope Borough School District. Prepared for the Education Hearings during the first Inuit Circumpolar Conference, held in Barrow, Alaska June 13-17, 1977. 22pp.
- Klerekoper, F. 1937. Diary of Fred Klerekoper: dogsled trip from Barrow to Demarcation Point, April 1937. North Slope Borough Commission on History and Culture, Barrow. 24pp.
- Kruse, J., J. Kleinfield, and R. Travis, 1980. Energy development and the North Slope Inupiat: quantitative analysis of social and economic change. Institute of Social and Economic Research (ISER). Univ. of Fairbanks, Alaska. 132pp.
- Lantis, M. 1950. The reindeer industry in Alaska. Arctic 3: 27-44.
- Leffingwell, E.K. 1919. The Canning River region, northern Alaska. USGS Professional Paper #109. Washington D.C. 242pp.
- Lenz, M. 1980. State likes way Natives treating alcohol program. Fairbanks Daily News Miner. June 12, 1980. Fairbanks, Alaska.
- Libbey, D. 1981. Cultural Resource Site Identification in Cultural Resources in the Mid-Beaufort Sea Region. A Report for the North Slope Borough's Coastal Zone Management Plan. North Slope Borough. Barrow. 86pp.
- MacLean, E. 1980. Inupiallu Tannillu Uqalunisa Ilanich: abridged Inupiaq and English dictionary. Alaska Native Language Center, Univ. of Alaska, Fairbanks, and Inupiat Language Commission, North Slope Borough, Barrow. 168pp.
- Magdanz, Jim. 1979. Spoiling the Blueberry Patch. In Alicia Patterson Foundation Reporter. Vol.2 #6. October. New York, N.Y.
- Marquette, W.M. pp. 16-19, 1976. Bowhead whale field studies in Alaska, 1975. In Marine Fisheries Review. Vol. 38, No. 8, August. pp. 9-17.
- Marquette, W.M. 1978. The 1976 catch of bowhead whales, *balaena mysticetus*, by Alaskan Eskimos. In Marine Fisheries Review, Vol. 40, No. 11. November. pp. 18-27.

- Marquette, W.M. 1979. The 1977 catch of the bowhead whales by Alaskan Eskimos. NMFS. Marine Mammal Laboratory Seattle. *In* Report to International Whaling Commission. 1979. SC/30/Doc. 35. pp. 281-289.
- Marquette, W.M., M.K. Nerini, H.W. Braham, and R.V. Miller: 1981 Bowhead whale studies, autumn 1980 — Spring 1981: harvest, biology and distribution. NMFS Marine Mammal Laboratory, Seattle. June. SC/33/PS 5. 27pp.
- Mikkelsen, E. 1909. Conquering the Arctic Ice. London: W. Heinemann. p.98.
- Milan, F.A., 1979. A broad view of health and nutrition as they relate to subsistence and changing life styles: an example from Arctic coastal Alaska. *In* Proceedings of Seminar Series: The subsistence lifestyle in Alaska now and in the future. School of Agriculture and Land Resources Mgmt. Univ. of Alaska, Fairbanks. Jan 19-Apr 27, 1978. pp. 108-118.
- Miller, M. 1935. The Great Trek: Doubleday, Doran & Co., Inc. N.Y. 224 pp.
- Nelson, R. 1979. Cultural Values of the Land *in* Native Livelihood and Dependence: A Study of Land Use Values Through Time. National Petroleum Reserve in Alaska. 105(c) Land Use Study: Field Study 1. U.S. Dept. of Interior. Anchorage.
- Nielson, J.M. 1977a. Beaufort Sea study. Historic and subsistence site inventory. North Slope Borough, Barrow. 113pp.
- Nielson, J.M. 1977b. Kaktovik Alaska: an overview of relocations. North Slope Borough, Barrow, Alaska. 26pp.
- Nobmann, E.D. 1978. Nutritional Considerations in Rural Alaska: Implications of Different Sources. *In* Proceedings of Seminar Series: The subsistence lifestyle in Alaska now and in the future. School of Agriculture and Land Resources Mgmt. Univ. of Alaska, Fairbanks. Jan 19-Apr 27, 1978. pp. 96-107.
- North Slope Borough Assembly. 1978. A resolution of the assembly of the North Slope Borough opposing oil development in the calving area of the Porcupine caribou herd. Resolution No. 19-78. August 1. Barrow, 2pp.
- North Slope Borough, Commission on History and Culture. 1980. Qiniqtuagaksrat Utuqqanaat Inuuniagninisiquin. The Traditional Land Use Inventory for the Mid-Beaufort Sea. Volume 1. 209.
- Okakok, L., 1981. Puiguitkaat: The 1978 Elders Conference. Gary Keane, ed. North Slope Borough Commission on History and Culture. Barrow, 653pp.
- Orth, D.J. 1967. Dictionary of Alaska place names. Geological Survey Professional Paper 567. U.S. Government Printing Office. Washington. 1084pp.
- Pedersen, S., 1979. Regional Subsistence Land Use North Slope Borough Alaska. Cooperative Park Studies Unit. University of Alaska, Fairbanks and Environmental Protection, North Slope Borough, Barrow. Occasional Paper No. 21, June. 30pp.
- Stefansson, V. 1913. My life with the Eskimo. MacMillan Co. New York. 447pp.
- Stuck, H. 1920. A winter circuit of our arctic coast. Charles Scribner's Sons. New York. 347pp.
- Uhl, W.R. and C.K. Uhl. 1977. Tagiumsinaaqmit. Ocean Beach Dwellers of the Cape Krusenstern area: subsistence patterns. Cooperative Park Studies Unit. Univ. of Alaska, Fairbanks. 227pp.
- U.S. Bureau of Indian Affairs. 1936-1938. Reindeer Program Records. Alaska Reindeer Service. U.S. Dept. of Interior (Formerly Office of Indian Affairs). University of Alaska Archives. Microfilm. Fairbanks, Alaska.

- U.S. Department of Interior. 1974. Final EIS: proposed Arctic National Wildlife Refuge, Alaska. Alaska Planning Group. Washington, D.C. 668pp.
- U.S. Fish and Wildlife Service. 1982. Initial Report. Baseline Study of the Fish, Wildlife, and their Habitats. Arctic National Wildlife Refuge Coastal Plain Resource Assessment. Section 1002(c). Alaska National Interest Lands Conservation Act. pp. 290-301.
- Wentworth, C. 1979a. Kaktovik Synopsis *In* Native Livelihood and Dependence: A Study of Land Use Values Through Time. National Petroleum Reserve in Alaska. 105c Land Use Study: Field Study 1. U.S. Dept. of Interior. Anchorage. pp. 89-105.
- Wentworth, C. 1979b. Our lives and the Beaufort Seacoast: A Kaktovik historical and land use perspective. North Slope Borough Coastal Zone Management Program. Unpublished narrative. September. 126pp.
- Wentworth, C. 1980. National Petroleum Reserve in Alaska: preliminary subsistence economy analysis, literature evaluation, and socio-economic impact mitigation measures. U.S. FWS and BLM Memorandum-of-Understanding. FWS 14-16-0007-80-5509. July 1. 47pp.
- Worl, Rosita. 1979. Values of subsistence to north slope Inupiat culture. *In* Native Livelihood and Dependence: A Study of Land Use Value Through Time. National Petroleum Reserve in Alaska. 105c Land Use Study: Field Study 1. U.S. Dept. of Interior. Anchorage. pp. 17-26.
- Worl, Rosita F. and Patricia O. McMillan. 1982. Sociocultural Assessment of Proposed Arctic National Wildlife Refuge Oil and Gas Exploration. Arctic Environmental Information and Data Centr. Anchorage. Prepared for U.S. Geological Survey.

